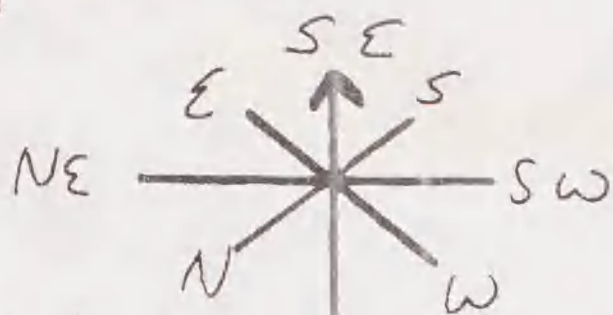


SI-MNH-958e  
7-28-64

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E

DATE 12 May 65  
Pg. # 1



1300 begin obs. NW

time	species	#	dir.	hgt.	remarks	loc.
1335	Red foot Booby	1	SE		2nd year bird	
1340	Wedgetail	1	E			
1345	Noddy	1	W			
1350	Noddy	1				
1355	Noddy	1				
1356	Bulwer's	1				
1357	Sooty Tern	25+			feeding adult	
	tern sp	25+				
	RFB	5+				
1400	Sooty Tern	1				
	Noddy	1				
1405	Sooty Tern	4	E			
1410	Noddy	2				
1412	Sooty Tern	25+			feeding - most sitting in water including Noddies 1 dark 1 subadult, 1 immature & adult	
	Noddy	75 ±10				
	Wedgetail	30 ±10				
	RFB	8				
1417	Wedgetail	3				
1420	Bulwer's P	1				
1422	Wedgetail	1				
1423	Wedgetail	3			flushed	
1423	Sooty Tern	1				
1424	Wedgetail	1				
1426	Sooty Tern	1				
1429	Sooty Tern	1				
1430	Noddy	1				
1435	Wedgetail	1				
1440	Bulwer's P	1				
1441	Bulwer's P	2				
1443	Bulwer's P.	2				
1445	Bulwers	1				
1453	Sooty Tern	4	S			
1454	RFB	1			adult	
1455	Sooty Tern	2				
	Wedgetail	2				
1456	Wedgetail	1				
1459	Noddy	1				
1501	Bulwer's	2				
1505	RFB	10			adult	
	Wedgetail	3+			feeding	
1506	Brown Booby	1				
	Wedgetail	1				
1507	Wedgetail	1				



DATE 12 May 65  
Pg. # 2

time	species	#	dir.	hgt.	remarks	loc.
1511	Arctic Tern	2				
1512	Wedgetail	1				
1514	Noddy	1				
1515	Wedgetail	2				
1515	Noddy	<del>80</del>			travelling	
1516	Wedgetail	2				
1517	Sooty Shear	2	✓			
1517	Bulwers P	1				
1519	Sooty Tern	1				
1520	Bulwers	1				
1530	Frigate	1				
1530	RFB	1			immature	
1532	RFB	1			adult	
	Wedgetail	1				
1540	RFB	1			adult	
1541	Wedgetail	2				
1550	RFB	1			adult	
1603	RFB	1			"	
1608	Sooty Tern	<del>10</del> 10			feeding	
	Noddy	10				
	Wedgetail	1				
	RFB	1			adult	
1610	Noddy	10			scattered adult some sitting	(2)
	RFB	1				
	Wedgetail	1				
1612	RFB	1			sitting adult	
1614	Sooty Shear	1	✓			4/3
1616	RFB	1			adult	
1619	shear/petrel	1			probably S.S.	
1622	Bulwers	1				
1624	Sooty Tern	10			feeding adult + immature	
	Noddy	15				
	RFB	3				
	Wedgetail	<del>15</del> 15				
1632	Sooty Shear	1	✓			
1632	Wedgetail	1				
1635	Sooty Tern	10+			feeding adult	
	tern sp	65				
	RFB	3				
1636	RFB	<del>8</del> 10			adult	
<del>1637</del>	<del>Sooty Tern</del>	<del>50</del>			feeding	
1637	Wedgetail	2+				
	Sooty Tern	2+				

186  
356  
312  
859

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E

DATE 12 May 65  
Pg. # 3

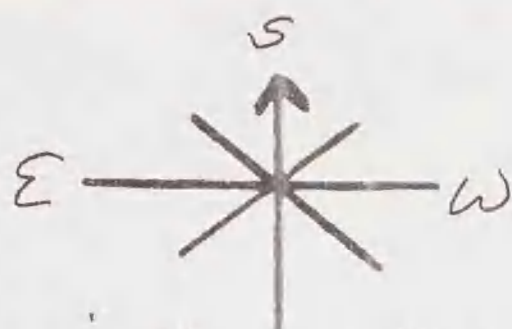
time	species	#	dir.	hgt.	remarks	loc.
1655	Sooty Tern	4				
	Noddy	17	N		travelling, strung out	
	Wedgetail	15				
	Red-foot B.	2				
1702	Tern sp	75+				
	Red-footed B	8+			feeding	
1703	BFA	1				
1704	Bulwers	1	<del>W</del>		didn't follow	
1705	Wedgetail	2				
1706	Bulwers	1				
1723	Sooty Shear	1	✓			
1740	Wedgetail	2				
1742	Sooty Tern	1				
1746	Sooty Shear	2	✓			
1750	Wedgetail	1			dark	
1758	Sooty Shear	1	✓			
1800	Bulwers	1				
1800	bird	1				
1735	shear/petrel	2				4/3
1735	Tern	3			seen by Azari	
1807	Wedgetail	1				
1810	Bulwers	1				
1815	Noddy	2				
	Wedgetail	1				
1831	Sooty Tern	5	N			
	Wedgetail	2			travelling	
1837	Noddy	14				
	Sooty Tern	2				
	Wedgetail	6			travelling - strung out	
	Bulwers	1				
1839	Wedgetail	1				
	Noddy	1				
1840	Sooty Tern	2				
	Wedgetail	2				
1843	Wedgetail	1				
1845	Bulwers P	1				
1850	Wedgetail	1				
1854	Bulwers P	1				
1902	and observations					

17  
101  
20  
60  
110  
233  
318  
859

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E

DATE 13 May 65  
Pg. # 1



time	species	#	dir.	hgt.	remarks	loc.
0552	begin observations					
0610	Sooty Shear	2	N			
0613	Bulwer's	1				
0618	Sooty Shear	2	N			
0619	Newell's S.	1	SW			
0620	Sooty Tern	3	N			
0625	Wedgetail	1	S			
0626	Sooty Shear	1	NW			
0630	Wedgetail	1	SW			
0639	Sooty Tern	3	N			
0639	Newell's S.	1	N			
0640	Bulwer's P	1	N			
0640	Sooty Shear	1	N			
0641	Wedgetail	1	SW			
0645	Sooty <del>S</del> Tern	1	S			
0647	Wedgetail	1	S			
0649	Newell's S.	1	S			
0658	Sooty Shear	3	NW			
0707	Sooty Shear	1	NW			
0715	Leach's P	1				
0718	Wedgetail	1				
0719	Sooty Shear	2	N			
0745	Sooty Shear	2	N			
0750	Bulwer's P	1	N			
0800	Shear/petrel	4			seen by watch	
0815	Sooty Shear	3	N			
0816	Sooty Tern	2				
0820	Sooty Shear	2	N			
0823	Wedgetail	2				
	Newell's S	1				
	Bulwer's	1				
0824	Sooty Tern	5+			feeding	
	Frigate	2				
0830	Wedgetail	1				
	Bulwer's P.	1				
0832	Sooty Shear	1				
0833	Sooty Shear	1				
0834	Leach's P	1				
0841	Sooty Shear	2	NW			
0850	Wedgetail	1				
0858	Sooty Shear	5	NW		not really a flock	
0859	Newell's S.	1	NE			
0902	Sooty Shear	6	NW			
0905	Sooty Tern	40±10			feeding	
	Wedgetail	4				
	Sooty Shear	2				
	Newell's Frigate	1				

30/15  
2 = 14  
2 = 15

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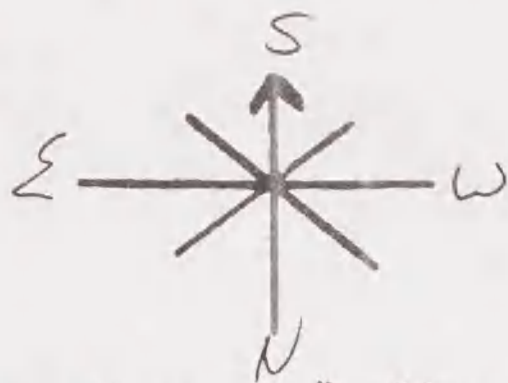
SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E

DATE 13 May 65  
Pg. # 2



time	species	#	dir.	hgt.	remarks	loc.
0917	<del>Cook's Petrel?</del> Blup? ?	1	SE		distant - small - white underpart	
0921	shear/petrel	1				
0924	shear/petrel	1				
0925	Bulwer's	1				
0937	Pom. Jaeger	1	NW			
0945	Sooty Shear	1	✓			
0945	Sooty Tern	150+			feeding - probably shear/petrel too	
0949	Sooty Shear	1	✓			
0951	shear/petrel	1				
0955	sooty shear	1	✓			
0956	Leach's P.	1				
1006	Sooty Shear	1	✓			
1013	bird	3				
1014	Sooty Shear	6	✓		no flock	
1015	Bulwers	1				
1021	wedgetail	1				
1022	Sooty Shear	1	✓			
1034	WTTB	1				
1042	Sooty Shear	1	✓			
1049	Sooty Shear	1	✓			
1054	Sooty Shear	1	✓			
1055	Frigate	3			feeding	
	Sooty Tern	5				
1100	Sooty Tern	3				
1105	Sooty Shear	1	✓			
1106	Sooty Shear	1	✓			
1118	Sooty Shear	2	✓			
1121	Bulwer's P	1				
1129	Newell's S	1				
1138	Sooty Shear	2	✓			
1145	Sooty Shear	3	✓			
1205	Sooty Shear	1	✓			
1210	sooty shear	5	✓		no flock	
1211	Sooty Tern	1				
1214	Sooty Shear	1	✓			
1215	Frigate	2			probably travelling	
	Sooty Tern	5+				
1216	Sooty Shear	1	✓			
1217	Leach's P.	1				
1218	Sooty Shear	1	✓			
1219	Sooty Tern	3				
1225	Wedgetail	1				
	Bulwers	1				
1228	Sooty Shear	1	✓			
1230	Sooty Shear	2	✓			
1231	Wedgetail	1				

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E

DATE 13 May 65  
Pg. # 5

time	species	#	dir.	hgt.	remarks	loc.
1233	Bulwer's P	1				
1233	Leach's P	2				
1259	Frigate	1				
	Sooty Tern	1				
1312	Bulwer's P	1				
1313	Sooty Shear	1	✓			
1327	Leach's P	1			white on <del>tail</del> <sup>rump</sup> extended well around into undertail coverts	
1333	Wedgetail	1			Harcourts? - flight perhaps less petrel-like, more floppy	
1415	Sooty Tern	2				
1425	Sooty Tern	2				
1440	Sooty Tern	2	N			
1445	Sooty Tern	1	NW			
	Fairy Tern	1				
1610	Sooty Shear	2	N			1-7+2 1/2 6-7 1
1612	Frigate	1				
1706	Sooty Shear	1	NW			
1710	Bulwer's P	1				
1732	Sooty Shear	1	N			
1733	Leach's P.	1	NW			
1734	Sooty Shear	2	N			
1745	Sooty Tern	1	NE			
1746	Leach's P	1				
1747	Newell's S.	1				
1751	Bulwer's P.	1				
1753	Bulwer's P.	1				
1757	Wedgetail	1				
1806	Sooty Shear	1				
1824	Wedgetail	1				
1825	shear/petrel	1			probably Sooty Shear	
1835	Leach's P.	1				
1852	Sooty Shear	2				
1900	and observations					

226  
123  
138  
387

23  
19  
14  
10  
230  
81  
110  
387



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DIVISION OF BIRDS  
AT SEA DAILY LOG -- E

DATE 14 May 65  
Pg. # 1

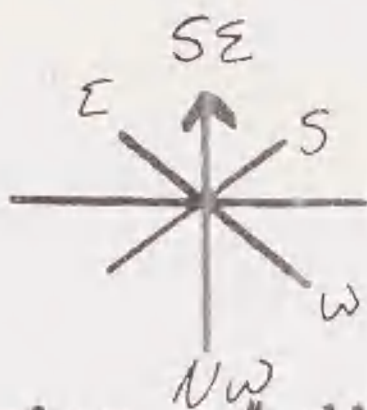


time	species	#	dir.	hgt.	remarks	loc.
0600	begin observations					
0621	Sooty Tern	3	E			
0622	Sooty Tern	5			scattering	
	Frigate	1				
0630	Sooty Shear	1	N			
0640	shear/petrel	1			seen by watch	
0755	Sooty Tern	1	N			
0800	sooty Tern	1	N			
0808	shear/petrel	1			light below, dark above, small, distant	
0822	Wedgetail?	1			seen by Howard	
0823	RTTB	1				
BWP? 0824	Cook's P	1			almost no black on underwing edges	
0830	sooty shear?	2			seen by Howard	
0854	bird sp	1				
0902	shear/petrel	1			dark above, light below, distant	
0912	Sooty Tern	2	NE			
BWP? 0922	Cook's Petrel	1				
1048	Cook's Petrel	3	NW			
1058	Cook's Petrel	4	NW			
1100	Cook's Petrel	1				
1112	Cook's Petrel	1				
	Jaeger sp	1			small type - white headed look - may account for sightings of shear/petrel X seen last spring.	
1120	WTTB	1				
1215	Sooty Tern	2	E			
1239	Sooty Shear	2			1 had white edged, long outer retrices	
1240	Cook's P.	1				
1259	shear/petrel	1				
1300	shear/petrel	1				
1304	WTTB	1			1300 15-20 smallish porpoises	
1337	Sooty Shear	1	N			
1411	Sooty Shear	1	N			
1419	Sooty Shear	1	NW			
1428	Sooty Shear	1	NW			
1450	RTTB	1			flushed	
1618	Bulwer's P	1	N			
1648	Cook's Petrel	2	NW			
1715	WNP	1			sat on water	
1755	shear/petrel	1			probably Cook's P	
	Cook's Petrel	1	SW			
1757	shear/petrel	1			seen by Suzuki	
1825	Cook's Petrel	1	SW			
1829	Bulwer's P.	1	N			
1844	shear/petrel	1			white underparts - seen by Pete	
1855	end observations					

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7-28-64

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E

DATE 15 May 65  
Pg. # 1



time	species	#	dir.	hgt.	remarks	loc.
0600	begin observations					
0600	shear/petrel	1			seen by george	
0652	Bulwer's P	1				
0705	tern sp	1			may be arctic Tern	
0715	Sooty Shear	1				
0717	Sooty Shear	1				
0718	Cook's P.?	1				
0719	shear/petrel	1			white underparts - distant	
0725	Cook's P.?	1			distant	
0740	Cook's P.?	1	sw		George	
0743	JFP?	1	w		"	
0745	shear/petrel	3	w		"	
0754	shear/petrel	1				
0756	Cook's P.	2	w			
0812	Sooty Shear	1				
0850	Bulwer's	1				
0906	Cook's P.?	1	NW		Suzuki	
0930	Cook's P.	1	NW			
0938	Wedgetail	1	NW		dark	
0939	Cook's Petrel	1	NW			
0946	Cook's Petrel	2	NW		one seemed intermediate in size between Cook's + JFP with fairly thick dark underwing edges	
0947	shear/petrel	1				
1005	Sooty Shear	1	N		Suzuki	
1010	Cook's P.	1				
1015	Cook's P.	1	NW			
1017	Cook's P.	2	NW			
1030	Cook's P.	1	w			
1035	Cook's P.	1	NW			
1049	Cook's P.	1	NW			
1052	Cook's P.	2	w			
1055	Sooty Shear	1	N			
1107	Pom Jaeger	1	NW			
1111	Cook's Petrel	1	NW			
1133	Cook's P.	4			Suzuki	
1134	Leach's P	1			"	
1135	Bulwer's	1			"	
1150	Cook's P.	1			Howard	
1204	wedgetail	1			dark	
1205	Leach's P	1				
1216	Cook's P.	3	w			
1217	Leach's P	1	N			
1237	Bulwer's P	1				
1249	Sooty Shear	1				
1326	Bulwer's P	2				
1230	propagator sp	1			seen off stern	



DATE 15 May 65  
Pg. # 2

time	species	#	dir.	hgt.	remarks	loc.
1450	JFP	1				
1541	Cook's P	1	NW			
1618	Cook's P	2	W			
1636	Cook's P	1	W			
1645	shear/petrel	1				
1647	Cook's Petrel	1	W			
1649	Sooty Shear	1				
1650	Cook's Petrel	1	W			
1658	shear/petrel	1				
1704	Cook's P.	1	W			
1708	Cook's P.	1				
1719	Cook's P	1	W			
1738	shear/petrel	1				
1740	Cook's P.	1	NW			
1745	Cook's P	1	NW			
1750	Sooty Shear	1	N			
1754	Cook's P.	1	N			
1812	Cook's Petrel	1	W			
1815	Cook's P	1	W			
1840	end observations					



DATE 16 May 65  
Pg. # 1

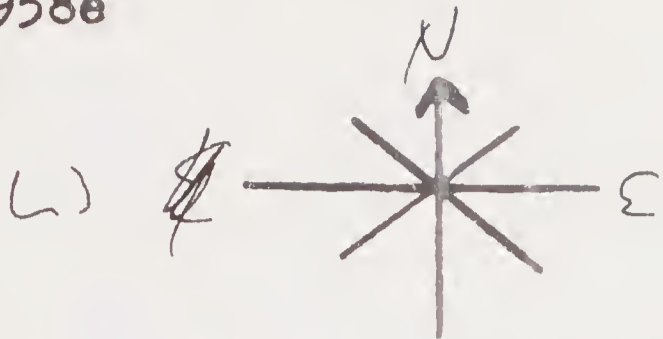
time species # dir. hgt. remarks loc.

time	species	#	dir.	hgt.	remarks	loc.
0550	begin observations					
0608	Sooty Shear	1	NW	✓		
0632	Sooty Shear	1	NW	✓		
0639	Bulwer's P	1				
BWP 0731	<del>Cook's P</del>	2	W			
0745	Sooty Shear	1		✓		
0750	Bulwer's P	1			} Asari George	
0800	shear/petrel	2				
" 0830	Cook's Petrel	1	W			
" 0842	<del>Cook's Petrel</del>	1	W			
" 0852	Cook's P.	1	NW			
" 0858	Cook's P.	1	W			
" 0903	Cook's P.	1	W			
" 0923	Sooty Tern	2	E			
" 0930	<del>Cook's P.</del>	2	NW			
" 0932	Cook's P	1	W			
" 0935	<del>Cook's P</del>	1	W			
" 1000	Wedgetail	1			light	
" 1015	<del>Cook's P</del>	1	NW			
" 1026	Sooty Shear	1	NW	✓		
" 1130	Sooty Shear	1	NW	✓		
" 1145	<del>Cook's P.</del>	1	NW			
" 1149	Mottled Petrel	1	NW			
" 1155	Cook's	1	NW			
" 1158	Cook's	1	NW			
" 1201	<del>Cook's P</del>	1	NW			
" 1204	shear/petrel	3	NW			
" 1220	Blue-faced Booby	1			immature - head & upper neck brown	
" 1244	Sooty Shear	1	NW	✓		
" 1245	<del>Cook's P.</del>	1	NW			
" 1255	Sooty Shear	3	NW	✓		
" 1300	JFP?	1				
" 1305	Cook's P.	4	NW		Flushed	
" 1325	<del>Cook's P.</del>	1	W			
" 1447	<del>Cook's P.</del>	1	W			
" 1459	<del>Cook's P.</del>	1	NW			
BWP? 1520	<del>Cook's P?</del>	2	NW			
" 1535	shear/petrel	2	NW		Seydeli larger than Cook's - JFP size but appeared to have dark underwing & white body - grey above	
" 1537	shear/petrel	1				
BWP 1606	<del>Cook's P.</del>	2	NW			
" 1614	Arctic Tern	1	N			
" 1620	shear/petrel	1	NW			
" 1628	Bulwer's?	1	NW			
" 1600	Tropicbird	1				
" 1630	Sooty Tern	3	E			
BWP 1639	<del>Cook's Petrel</del>	1	NW			

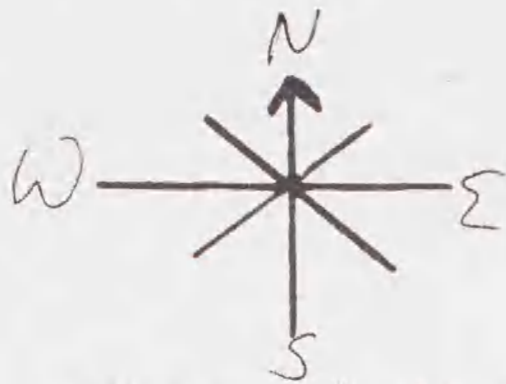
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7-28-64

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E

DATE 16 May 65  
Pg. # 2



time	species	#	dir.	hgt.	remarks	loc.
1650	shear/petrel	1				
1652	Cook's Petrel	2	NW			
1710	Cook's P.	1	NW			
1742	Bulwer's	1	S			
1747	Cook's P.	1	NW			
1752	bird	1			seen from stern	
1755	Cook's P.	1	NW			
1810	<del>Cook's P.</del> Cook's Petrel	2	NW			
1825	Cook's	1	NW			
1830	Sooty Shear	1	NW			
1837	end observations					



DATE 17 May 65  
Pg. # 1

time species # dir. hgt. remarks loc.

BWP  
"

0540 begin observations

0640 Wedgetail 1 NW

dark

0641 ~~Cook's P.~~ 2 NW

0659 Bulwer's 1 NW

0700 ~~Cook's P.~~ 1 NW

0712 Wedgetail 6 NW

0713 shear/petrel 2 NW

travelling - light

0725 Wedgetail 1 NW

light

0740 shear/petrel 1 W

0745 Wedgetail 1

light

0755 Wedgetail 3

light - seen by Howard

0820 ~~Dart-numped P.~~ 1 SW

0945 WTTB 1

1043 shear/petrel 1

1201 Wedgetail 1 NW

3 george

1205 Bulwer's P 1 E

1337 Wedgetail 4 W

light

1515 Wedgetail 1 NW

light

1533 shear/petrel 1

1534 Wedgetail 1 NW

light

1550 Sooty Shear 1 NW

1636 Sooty Shear 1 NW

1650 Frigate 1

travelling  
light

Wedgetail 5

1702 Bulwer's P 1

1740 Wedgetail 1

1745 Wedgetail 1

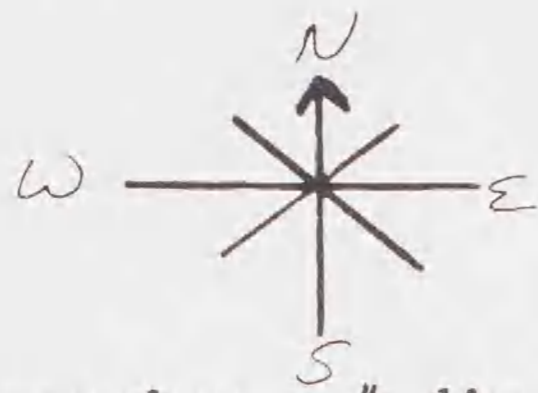
1820 Wedgetail 1 NW

light

1830 Wedgetail 1

light

1845 end observations



DATE 18 May 65  
Pg. # 1

time species # dir. hgt. remarks loc.

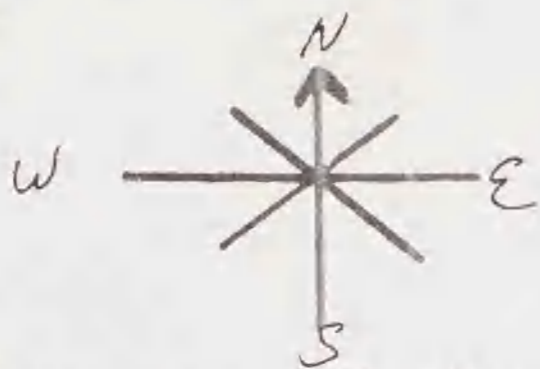
0535	begin observations					
0545	Leach's P	1	NW			
0608	Sooty Shear	2	NW	✓		
0612	shear/petrel	1				
0615	Wedgetail	2	NW			
0616	Sooty Shear	1	NW	✓		
0617	shear/petrel	1	NW			
0618	WTTB	1				
0620	Sooty Shear	1	NW	✓		
0625	Sooty Shear	1	NW	✓		
0630	Leach's P.	1	NW			
0645	Wedgetail	2	NW			
0714	RTTB	1				
0803	Bulwer's P	2				
0832	Bulwer's P	1				
0845	Sooty Tern	2				
0846	Bulwer's	1				
0847	Bulwer's	1				
0848	Sooty Tern	100+			feeding - spread out	
	shear/petrel	15+				
0902	shear/petrel	1	NW		probably Wedgetail	
0923	Bulwer's?	1	NW			
0930	shear/petrel	1				
0931	Bulwer's P	1				
0932	RTTB	1				
0933	Sooty Tern	1				
0937	Sooty Tern	1			immature	
0938	Frigate	1				
1002	Sooty Tern	23			feeding, then rise to 75 ft +	
	Fairy Tern	1				
	shear/petrel	1				
1013	Wedgetail	1				
1020	Sooty Tern	30			feeding	
	Fairy Tern	2				
	shear/petrel	2				
1021	Sooty Shear	1	N	✓		
1042	Bulwer's P	1				
1044	Sooty Tern	25			travelling	
	Fairy Tern	2				
1045	Bulwer's	1				
1121	Sooty Shear	1	NW	✓		
1154	Sooty Tern	25+			feeding	
1215	Sooty Tern	1				
1218	shear/petrel	2				
1220	Tropicbird	2				
1225	shear/petrel	1				
1236	Sooty Tern	26			5 break off	
	Sooty Shear	2			<del>travelling</del> feeding, then rise	
1330	Sooty Tern	50			feeding 1370 whale	
	wedgetail	2				

5  
057  
9 (7)  
NW = 2  
W = 1

SI-MNH-958e  
7-28-64

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E

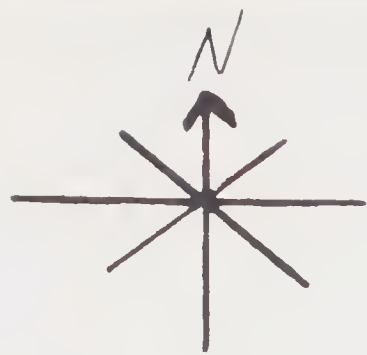
DATE 18 May 65  
Pg. # 2



time	species	#	dir.	hgt.	remarks	loc.
1345	Sooty Tern	1	W			
1355	Sooty Tern	2	W			
1410	Sooty Tern	1	E			
1415	Newell's S. T.	1	NW			
1420	Sooty Tern	16+				
1433	Sooty Shear	2	NW	✓	travelling	
1440	Sooty Tern	2	E			
1442	Sooty Shear	1	NW	✓		
1445	Sooty Tern	3	W			
1500	Sooty Tern	50 ± 2				
	Wedgetail	8			feeding original flock of 20 joined by 10 individuals	
	shear/petrel	2			+ then group of 25 or so	
1515	Sooty Tern	50 ± 2				
	Wedgetail	3+			feeding - split in two - one with 20 ST + WT	
1525	Sooty Tern	43 ± 2			+ other with 30 ± 2 WT.	
	Wedgetail	1			feeding	
1532	Sooty Tern	1				
1533	bird	1				
1550	shear/petrel	1				
1551	Sooty Tern	1				
1608	Sooty Tern	50 ± 5				
	Wedgetail	10 ± 2			feeding	
	Frigate	2				
1610	Sooty Shear	1	NW	✓		
1612	Sooty Shear	1	NW	✓		
1615	Sooty Shear	2	NW	✓		
1619	Wedgetail	1				
1620	shear/petrel	1				
1635	Frigate	1				
1636	Sooty Shear	1	NW	✓		
1653	shear/petrel	1				
1712	Sooty Shear	1				
1710	shear/petrel	1			seen by 1st mate	
1731	Sooty Shear	1	NW	✓		
1734	Dad. nump??	1			seen by Ternite	
1745	JFP/DRP?	1	NW		too far to be sure	
1755	JFP/DRP?	1	NW		"	
1757	Sooty Tern	15	N		travelling	
1759	Bulwers P	1				
1802	shear/petrel	1				
1815	Sooty Shear	1	NW	✓		
1816	Sooty Shear	2	NW	✓		
1822	Sooty Shear	1	NW	✓		

(5)  
(2)  
14 (14)  
24-13





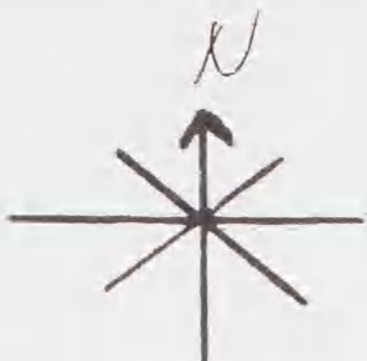
DATE 18 May 65  
Pg. # 3

time	species	#	dir.	hgt.	remarks	loc.
1830	Sooty Tern	20+			feeding	
	shear/petrel	2+				
1832	Sooty Shear	1	NW	✓		
1834	Bulwer's	1				
1835	Sooty Shear	3		✓		
1836	shear/petrel	1				
1845	Sooty Tern	35 ± 5			feeding	
	shear/petrel	10 ± 2				
1844	Sooty shear	1	NW	✓		
1855	end observations					

(27)  
5(37)  
NW 2

337  
288  
74  
699

20  
30  
11  
570  
26  
1,35  
692  
2  
1  
4



DATE 19 May 65  
Pg. # 1

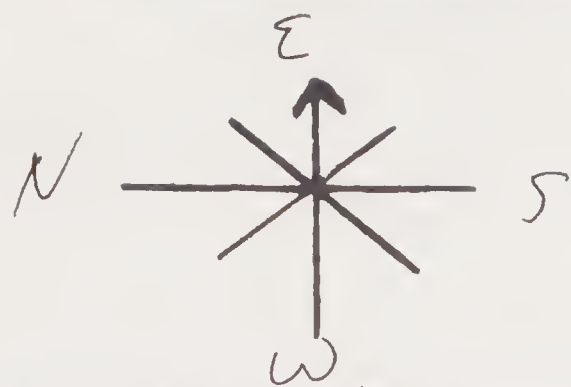
time species # dir. hgt. remarks loc.

0538	<del>shear/petrel</del>	3			tropicbird sp 1 before dawn	
0542	Newell's Shear	2				
0600						
0600	begin observations					
0605	Newell's S	1				
0615	Sooty Tern	4	E			
0625	bird					
0635	bird	1				
0645	Sooty Tern	50	±5			
	Frigate	1			feeding	
0645	Sooty Shear	1		✓		
0655	Sooty Tern	5			travelling	
0655	Bulwer's	2				
0656	Sooty Tern	1				
0700	Sooty Tern	3				
0705	shear/petrel	1				
0735	sooty tern	75	±5		feeding	
	Wedgetail	8	±2			
0740	Wedgetail	3				
0742	Newell's	1				
0746	Sooty Tern	125	±50		feeding	
	<del>Wedgetail</del>	25				
	shear/petrel	1				
0750	Newell's	1				
	Bulwers	2				
0754	Sooty Tern	2				
0757	Newell's	1			flushed	
0805	Noddy	1				
0808	Sooty Tern	40				
0809	shear/petrel	5			feeding	
	Sooty Shear	1				
0810	Bulwer's P	1	NW	✓		
0820	WTTB	1				
0825	sooty Shear?	1	S			
		1				
0845	Wedgetail	1				
0855	Sooty Tern	4	E			
0857	shear/petrel	1				
0905	Sooty Tern	1	W			
0912	Sooty Tern	1				
0930	tropicbird	1				
1010	Wedgetail	1				
1145	Bulwers	1				
1150	Sooty tern	75	±5			
	Fairy Tern	4			feeding	
	Frigate	1				
	Wedgetail	4				
1202	Wedgetail	5			intermediate - sitting	
1205	shear/petrel	1				
1210	Sooty tern	2				
1212	Sooty Tern	5			travelling	

E  
N  
W

2 (W)  
NW 21

21  
23  
476  
15  
11  
38  
584



DATE 19 May 65  
Pg. # 2

time species # dir. hgt. remarks loc.

1230 Newell's 1

1233 Sooty Shear 1 NW ✓

1303 Sooty Shear 1 ✓

1315 Sooty Tern 1 S ✓

1317 Sooty Shear 1 ✓

1435 Sooty Tern 80  
Fairy Tern 1  
Frigate 3  
shear/petrel 5+  
feeding

1550 Sooty Shear? 1 N

1620 Sooty Shear 1 NW ✓

1705 Sooty Shear 2 NW ✓

1713 Sooty Shear 1 NW ✓

1720 Sooty Tern 2 ✓

1725 Sooty Shear 1 ✓

1735 Sooty Shear 1 ✓

1830 Sooty Shear 1 ✓

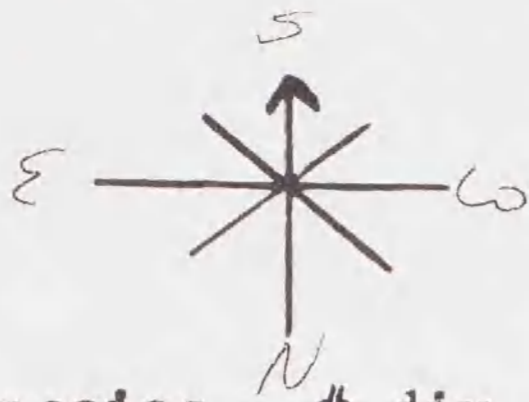
1832 Wedgetail 1 ✓

1835 Sooty Shear 1 ✓

1850 end observations

(10)

dark



DATE 20 May 65  
Pg. # 1

time species # dir. hgt. remarks loc.

0515 begin observations

0525 Sooty Tern 2

0528 Wedgetail 1

0710 Sooty Shear 1 N

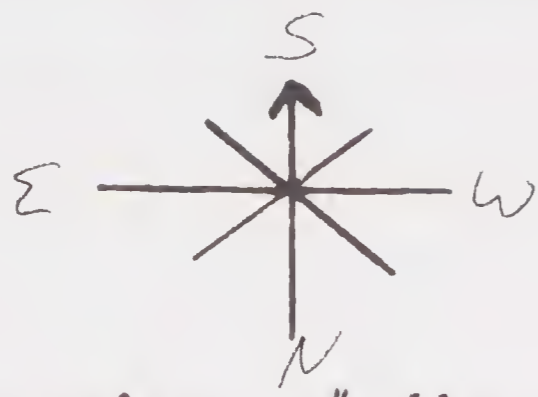
0800 Frigate 1  
0815 Leach's P 1  
0842 Sooty Shear 1  
0950 Sooty Tern 1 NW  
1007 Sooty Shear 1 NW  
1017 Sooty Tern 5  
1018 Sooty Shear 4 NW  
1030 Bulwers P. 1  
1031 Sooty Shear 1  
1045 Bulwers P 1  
1347 Sooty Shear 4  
1415 Sooty Shear 1 NW  
1420 Sooty Shear 2 NW  
1425 Sooty Shear 1 NW  
1440 Arctic Tern 1 N  
1445 Sooty Shear 1 NW  
1452 Sooty Shear 1 NW  
1500 Sooty Shear 4 NW  
1505 Sooty Shear 1 NW  
1520 Sooty Shear 3 NW  
1521 Frigate ~~Tern~~ 2  
1540 Sooty Shear 1 NW  
1550 Sooty Shear 1 NW  
1600 Sooty Shear 1 NW  
1635 Newell's S. 1 NW  
1645 Sooty Shear 1 NW  
1647 Sooty Shear 1 NW  
1702 Sooty Shear 2 NW  
1740 ~~Shear~~ Sooty Shear 1 NW  
1815 Sooty Shear 1 NW

Came very close - perhaps too grey, large, probably SS. but looked a bit odd - flushed?

flushed

feeding

1840 end observations



DATE 21 May 65  
Pg. # 1

time species # dir. hgt. remarks loc.

0532	begin observations					
0650	Wedgetail	1				
0725	Sooty Shear	1	N			
0800	Sooty Shear	1				
0850	Pom Jaeger	1	NW			
0915	Wedgetail	1				
0925	jaeger sp.	1				
0935	WTTB	1				
1012	Wedgetail?	1				
1018	Sooty Shear	1				
1019	Leark's P	1				
	Bulwer's P	1				
1032	Sooty Shear	1	NW			
1047	shear/petrel	1				
1050	Leark's P	1				
1103	Pom Jaeger	1	NW			
1110	Wedgetail	2	S			
1120	Kermadec P.	1	NW		light	
1202	Wedgetail	1				
1250	Sooty Shear	2	NW			
1415	Sooty Shear	1				
1545	Sooty Shear	1	NW			
1715	Sooty Shear	2	NW			
1735	Sooty Shear	1	NW			
1832	end observations					



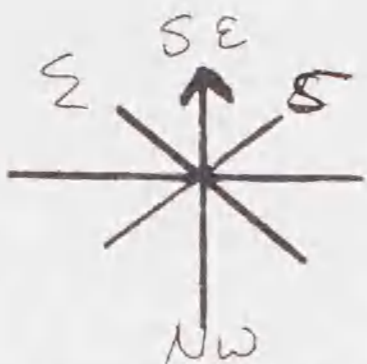
**time species # dir. hgt. remarks loc.**

BWP

"

time	species	#	dir.	hgt.	remarks	loc.
0532	begin observations					
0553	Shear	1	NW			
0605	WNP					
0619	Sooty Tern	1	NW		fairly broad wings	
0620	shear/petrel	1				
0620	shear/petrel	1				
0621	Sooty Shear	1	WNW		seen by Ternite, white underparts, dark underwing	
0623	Sooty Shear	2	WNW			
0623	Leach's P	1	NW			
0624	WTTB	1				
0625	Sooty Shear	1	NW			
0635	Sooty Tern	3				
0655	JFP	1				
0725	JFP	1				
0800	tropicbird	1				
0810	JFP	1				
0845	Bulwers	1				
	Leach's P	1				
0908	Leach's P	1				
0915	bird	2				
0922	shear/petrel	1				
1130	Cooper's P	1				
1200	Bulwer's P	1			sat twice	
1350	Leach's Petrel	1				
1405	JFP	1				
1423	shear/petrel	1				
1515	JFP	2			1515 1 Whale + 20 or so porpoises ↓ headed SE          headed S	
1540	shear/petrel	1				
1600	JFP	1				
1605	JFP	1				
	Bulwer's	1				
1635	JFP	1				
1638	Wedgetail	1				
1642	JFP	1				
1647	shear/petrel	1				
1746	JFP	1				
1750	Wedgetail	1				
17 <del>42</del> <sup>24</sup>	JFP	1				
1730	JFP	1				
1753	RTTB	1				
1800	Wedgetail	1				
1810	JFP	1				
1830	end observations					





DATE 23 May 65  
Pg. # 1

	time	species	#	dir.	hgt.	remarks	loc.
	0532	JFP	1				
	0540	begin observations					
	0540	Blue-faced Booby	1			immature	
	0600	Newell's S	1				
BWP	0625	Cook's Petrel	1	NW			
	0632	Cook's Petrel	1	NW			
	0637	Newell's S.	1				
	0645	JFP	2				
	0650	Newell's S	1	NW		flying very petrel-like	
	0655	shear/petrel	1				
	0700	bird	1				
	0704	JFP	1			missing 1st and/or 2nd primaries	
	0710	shear/petrel	1				
	0712	Newell's S.	1				
	0725	WNP	1			broad white collar	
	0800	shear/petrel	1				
	0809	Newell's S?	1	NW		Wedgetail/JFP	
	0810	Leach's P	1				
	0820	shear/petrel	2				
	0825	JFP	1				
	0828	shear/petrel	1				
	0830	shear/petrel	1				
	0832	shear/petrel	1	NW			
	0836	shear/petrel	1	NW			
	0909	WNP	1				
BWP	0900	Cook's P	1				
	0910	JFP	1	NW			
"	0912	Cook's P	1	NW			
	0915	JFP	1	NW			
	0918	JFP	1	NW			
		Wedgetail	1	NW			
	0925	JFP	1				
"	0926	Cook's	1	NW			
	0927	JFP	1				
	0928	shear/petrel	1				
	0932	shear/petrel	1				
"	0935	Cook's	1	NW			
	0939	JFP	1	NW			
	0942	shear/petrel	1	NW			
	1005	shear/petrel	1				
"	1012	Cook's	1				
"	1020	Cook's	1	NW			
	1024	long-tailed Jaeger	1	NW		light, tail 3" + - might possibly be Parasitic J.	
	1028	Wedgetail?	1				
	1029	JFP	1				
	1030	Bulwer's	1				
	1047	JFP	1				
	1048	shear/petrel	1			} in heavy rain squall	
	1058	WNP	1			"	
	1200	Fairy Tern	1				
	1220	Newell's S	1				

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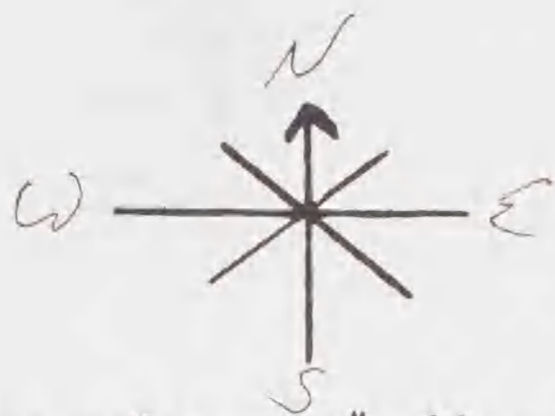
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DATE 23 May 65  
Pg. # 2



	time	species	#	dir.	hgt.	remarks	loc.
	1221	JFP	1				
	1235	JFP	1				
BWP	1239	<del>Cook's P</del> JFP?	1	NW			
	1255	Wedgetail	2			dark	
	1303	JFP Wedgetail	1				
	1310	Wedgetail	1			dark	
	1315	shear/petrel	1			"	
	1322	JFP	1				
	1330	JFP	1				
	1340	Sooty Tern	8				
		JFP	8			travelling	
		Wedgetail	8			dark	
		Newell's S.	1				
	1353	Wedgetail	1	SW			
	1505	Newell's ?	1	NW		dark	
	1512	shear/petrel	1				
	1514	Leach's P	1				
	1528	Wedgetail	1			light	
	1535	<del>Wedgetail?</del> shear/petrel	1				
	1540	JFP	1				
	1612	JFP	1				
BWP	1613	<del>Cook's P.</del>	1	NW		missing 1st, 2nd primaries, flushed, sat again 20 yds	
BWP	1630	<del>Cook's P</del>	1	NW		flutter on - flapped without much effect	
	1654	RTTB	1				
	1728	JFP	1				
	1735	Bulwer's	1				
BWP	1736	<del>Cook's P</del>	1	NW			
	1740	JFP	1				
	1742	shear/petrel	1				
	1802	Leach's P	1				
	1815	end observations					

$$\begin{array}{r} 29 \\ 16 \\ 31 \\ 12 \\ 17 \\ \hline 105 \end{array}$$



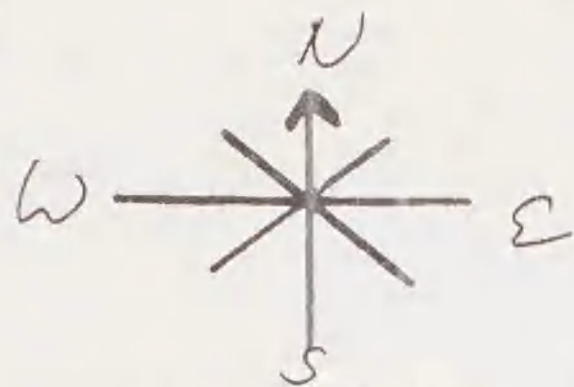
DATE 24 May 65  
Pg. # 1

time	species	#	dir.	hgt.	remarks	loc.
0528	begin observations					
0530	Blue-faced Booby	2			immatures	
0558	WNP	1				
0559	shear/petrel	1				
0606	shear/petrel	1				
BWP 0607	<del>shear/petrel</del>	1				
0608	Wedgetail	1	W		fast, very high arcs.	
0609	shear/petrel	1			dark	
0610	shear/petrel	1				
0611	shear/petrel	1				
0612	shear/petrel	1				
0625	Blue-faced Booby	1				
0626	JFP	1			all 3 together - 2 nearly white headed	
0630	shear/petrel	1				
0631	Wedgetail	1				
0633	JFP	1			dark	
0637	JFP	2			flushed	
0647	Wedgetail	1			dark molting	
0648	Wedgetail	1			dark "	
0650	shear/petrel	1				
BWP 0705	<del>shear/petrel</del>	1	W			
0713	JFP	2			molting	
0724	JFP	4	SW			
0725	JFP	3				
0726	Wedgetail	1			dark	
	JFP	1				
0727	JFP	2				
0731	JFP	1				
	Wedgetail	1			dark	
0732	Wedgetail	1			dark	
0733	JFP	1				
0745	JFP	2				
0750	JFP	2				
0755	JFP	2				
0756	Wedgetail	2				
0757	JFP	3			dark	
	Wedgetail	1			dark	
0804	JFP	3				
	Wedgetail	1			dark	
0808	JFP	1				
	Wedgetail	2			dark	0807/BFB - maybe one of 3-headed
0808	RTTB	1				
0809	shear/petrel	1				
0825	shear/petrel	1				
0838	JFP	1				
0842	<del>JFP</del> Wedgetail	1				
0854	Wedgetail	1			dark	
0855	JFP	1				

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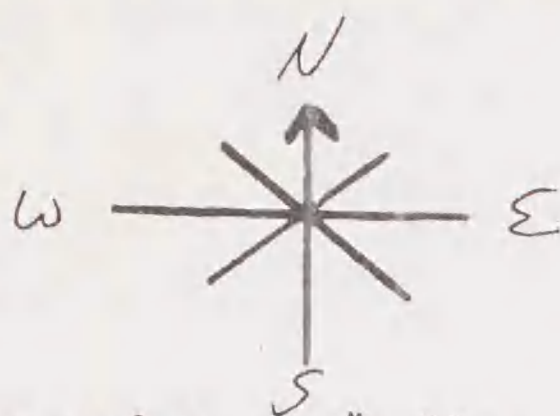


time	species	#	dir.	hgt.	remarks	loc.
0858	JFP	1				
0924	Wedgetail	1			dark	
0926	Wedgetail	1			dark	
0940	Wedgetail	1				
0942	Newell's S	1				
0943	JFP	1				
0950	JFP	1				
0951	Cook's	1				
0958	JFP	1				
1000	Cook's	1				
1012	Cook's	1	W			
1014	Cook's P	1	NW			
1025	Newell's	2				
1026	JFP	1			<del>flushed</del> flushed - one paddled on water	
1028	shear/petrel	2				
1029	JFP	2			flushed	
1030	RTTB	1			flushed	
1036	JFP	1				
1046	Wedgetail	1			dark	
1047	Bulwer's P.	1				
1103	JFP	1				
1117	Newell's S.	1				
1119	Cook's P	1				
1125	JFP	1				
	Cook's	1				
1136	JFP	2				
1141	Cook's	1				
1150	shear/petrel	1				
1158	JFP	1				
1215	Wedgetail	3				
1220	Wedgetail	1			dark - flushed - molting	
1225	Wedgetail	1			dark	
1237	Cook's	1			dark	
1256	Wedgetail	2			flushed dark	
1250	Cook's	1				
1259	Wedgetail	1			dark	
1305	Cook's P	2				
	JFP	1				
1310	Wedgetail	1				
1312	JFP	1			dark	
1314	Wedgetail	1				
1315	shear/petrel	1			dark	

1115 tremendous school of 2-3" squid  
breaks surface & "flies" soft near  
probably >1000

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 DIVISION OF BIRDS  
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	time	species	#	dir.	hgt.	remarks	loc.
BWP	1323	<del>Cook's</del>	1				
	1324	Leach's	2				
	1325	JFP	1				
	1326	JFP	1				
"	1327	<del>Cook's</del>	1	NW			
"	1328	Cook's	1	NW			
	1337	Wedgetail	2			flushed down	
"	1339	<del>Cook's</del>	1				
	1340	RTTB	1				
	1340	JFP	1				
	1355	JFP	1				
"	1356	<del>Cook's</del>	1				
	1410	RTTB	1				
	1425	JFP	2	NW		dived from 50 ft	
	1435	JFP	1	NW			
"	1450	<del>Cook's</del>	1	NW			
P. ex	1457	WNP?	1				
	1458	RTTB	1				
	1505	JFP	1				
	1510	Wedgetail	2			dark	
	1515	JFP	2				
	1530	JFP	1				
	1535	JFP	1				
	1540	JFP	3				
		DRR?	1				
	1547	JFP	1				
	1557	JFP	1				
	1555	JFP	1				
	1605	Leach's	1				
	1610	JFP	1				
BWP	1612	<del>Cook's</del>	1				
	1620	Wedgetail	1			dark	
	1621	JFP	1				
"	1622	<del>Cook's</del>	2	NW			
	1624	JFP	1				
	1625	Newell's	1	N			
	1629	Leach's Bulwer's	1				
	1630	Newell's	1			flushed	
	1640	JFP	3				
	1642	JFP	1				
"	1644	<del>Cook's</del>	1	NW			
	1647	Shear-Petrel	1				
"	1650	<del>Cook's</del>	1	NW			
"	1652	<del>Cook's</del>	2	NW			

 23  
 64  
 50  
 156  
 193

44  
33  
32  
87  
193

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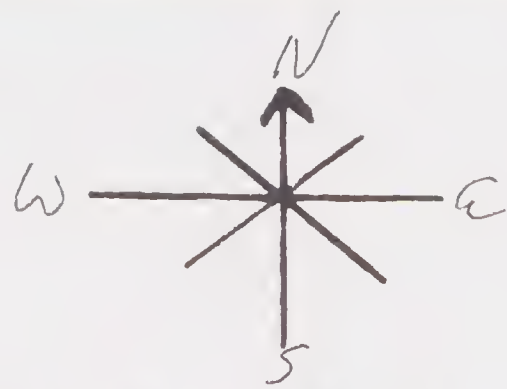


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DATE 24 May 65  
Pg. # 4

time	species	#	dir.	hgt.	remarks	loc.
1710	JFP	2			Collected 1715	
1720	JFP	1				
BWP 1705	<del>Cooks</del>	1				
" 1728	Cooks	1				
" 1730	Cooks	2				
1732	shear/petrel	1			larger, all dark, seen by Terrinto (larger than Wedgetail)	
" 1737	Cooks	1				
1740	JFP	1				
1741	JFP	1				
1750	shear/petrel	1				
1800	JFP	1				
1801	JFP	1				
1802	JFP	1				
1803	JFP	1			flushed	
	WNP?	3				
1805	JFP	1				
" 1810	<del>Cooks</del>	1				
1812	JFP	1				
1815	and observations	2				





DATE 25 May 65  
Pg. # 1

time species # dir. hgt. remarks loc.

0525 begin observations

0555 Wedgetail 2 1? both light

0558 JFP 3

0615 JFP 1

0620 shear/petrel 1 N

0625 JFP 1 WT/SFP

0628 JFP 1

0643 JFP 1

0700 JFP 1

0715 JFP 2

0716 Wedgetail 1 dark

0730 JFP 1

0740 JFP 1

0815 JFP 1

0830 JFP 1

0835 shear/petrel 1

0850 WNP 1

0902 JFP 1

0905 JFP 1

0910 shear/petrel 1

1045 JFP 1

1105 shear/petrel 1

1108 JFP 1

1115 JFP 1

1125 JFP 1

1329 JFP 2

1332 Bulwer's P 1 flushed

1400 Bulwer's P 1 W

1602 Wedgetail 1

BWP 1605 ~~Cook's~~ 1 light

1630 JFP 1

1635 WNP 1

1650 Wedgetail 1 light

1700 JFP 1

1720 JFP 1

1815 shear/petrel 1

1820 end observations

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7-28-64

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E

DATE 26 May 65  
Pg. # 1



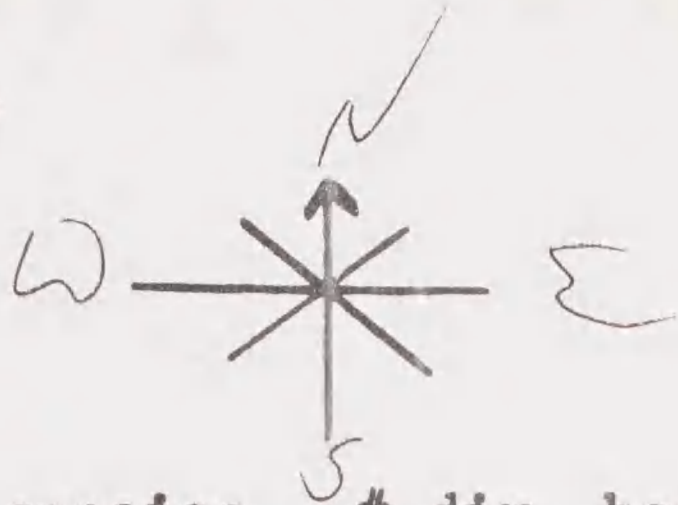
time species # dir. hgt. remarks loc.

time	species	#	dir.	hgt.	remarks	loc.
0526	begin observations					
0610	JFP	1				
0625	JFP	1				
0626	WNP	1				
0635	shear/petrel	1				
0642	shear/petrel	2				
0645	JFP	1				
0650	shear/petrel	1				
0705	sooty shear	1	NW			
0706	JFP	1				
0710	Wedgetail	1	NW		light	
0713	shear/petrel	1	NW			
0724	Sooty shear	1	NW			
0725	shear/petrel	1				
0726	Bulwer's?	1				
0810	Sooty Shear	1	NW			
0812	JFP	1				
0815	JFP	1				
0816	JFP	1				
0817	Sooty Shear	1	NW			
0818	JFP	1				
0818	JFP	5			flushed	
BWP? 745	<del>Cook's?</del> JFP	1			2 had unspotted plumage, appeared to be slightly smaller. ??	
0753	JFP	1				
0900	JFP	50 ± 5			millling around. couldn't see any other shapes than JFP's. possibly feeding. observed for 10 minutes or so at distance of 1/2 - 1 mile from ship.	
0935	JFP	1				
1105	WTTB	1				
1155	JFP	10 +				
1232	Wedgetail	2 +			dark. perhaps a splinter of 0900 flock - searching + feeding	
BWP	<del>Cook's P</del>	1			flushed	
1240	shear/petrel	1				
1242	JFP	1			medium-large - dark brown above, dark underwing, possibly white breast + belly - too far to be sure. ?? molt showed some white through dark wing feathers, according to Suzuki	
1305	JFP	1				
1320	Wedgetail	1			light	
1335	JFP	1				
1355	Sooty Shear	1	NW			
1400	Shear/petrel	2				
1410	shear/petrel	1	W			
1415	WTTB	1				

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E

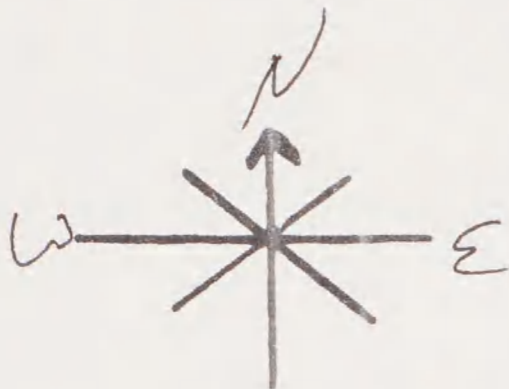
DATE 26 May 65  
Pg. # 2



time	species	#	dir.	hgt.	remarks	loc.	
1433	shear/petrel	3					
1500	Sooty Tern	5±2					
	shear/petrel	20±5			feeding? distant		
1500	shear/petrel	2					
1510	shear/petrel	1			dark		
1524	shear/petrel	1			might have been Newell's		
1528	WNP	1					
	JFP	1	E		flushed		
1529	JFP	1	E				
1540	JFP	16	E				
	WNP	1			travelling - joined by above 3 to make 20		
1610	shear/petrel	1					
1615	JFP	1					
1630	JFP	1					
1715	Dark-rumped Petrel	1			seen by Ternite - "very dark bird" came close		
1743	Wedgetail	1			light		
1809	JFP	2					
	WNP	1			flushed		
1815	Wedgetail	1			light		
1823	JFP	1					
1825	end observations						

$$\begin{array}{r} 26 \\ 103 \\ + 38 \\ \hline 167 \end{array}$$

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E

DATE 27 May 65  
Pg. # 1

time	species	S	#	dir.	hgt.	remarks	loc.
0518	begin observations						
0600	Sooty Shear		1	NW			
0715	Bulwer's		1				
0925	Leach's ?		1				
1205	Sooty Shear		1				
1500	RTTB		1				
1530	Sooty Shear		1				
1840	end observations						

1625 large whale

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E

DATE 28 May 65  
Pg. # 1



time species # dir. hgt. remarks loc.


time	species	#	dir.	hgt.	remarks	loc.
0502	begin observations					
0800	shear/petrel	1				
1002	Newell's	1				
1015	BFA	2				
1615	Newell's	1				
1620	Sooty Shear	1			1200 1 BFA 1400 1 BFA	
1625	Newell's	2			flew back + forth around ship, unconcerned about migrating north, acted more like a Wedgetail but was clearly a S.S.	
1640	Newell's	1			followed alongside ship, coming close enough twice to shoot, but I missed	
1700	Newell's	1			came right under bow but I was on bridge	
1800	Sooty Shear	1	NW			
1845	BFA	1				
1845	end observations					

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E

DATE 29 May 65  
Pg. # 1

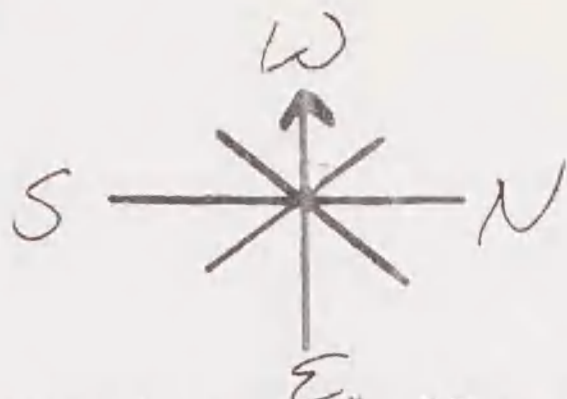


time	species	#	dir.	hgt.	remarks	loc.
0450	bird	1			seen by Jan - large, probably all dark, flapped constantly, not an albatross?	
0510	begin observations					
0540	Sooty Shear	1	SW			
0800	Dark-rumped	1				
0920	Wedgetail	1			came by very close - no doubt	
1100	Bulwer's	1				
1137	WTTB	1				
1255	WTTB	1				
1303	Arctic Tern	1	N			
1310	Sooty Shear	1	N			
1330	Kermadec P	1	N		light	
1342	Dark-rumped	1				
1355	Sooty Shear	1	N			
1425	Leach's P	1				
1455	Frigate	1				1545 whale
1800	Wandering Tattler	1				
1815	Frigate	1				
1850	end observations					

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E

DATE 30 May 65  
Pg. # 1



time species # dir. hgt. remarks loc.

0535 begin observations

0610 Sooty Tern 39

Newell's ~~Shear~~ 3+

Dark-rumped P 1

Frigate 1

Bulwer's 1

0625 shear/petrel 1

0655 Dark-rumped P. 1 S

0656 DRP? 1 S

0657 Wedgetail 1

0700 Bonin Is P 1

0705 Wedgetail 1 S

0710 shear/petrel 2 S

0720 DRP? 1

0728 shear/petrel 1

0729 bird 1

0732 Sooty Shear? 1

0835 RTTB 1 N

0935 Bulwer's 1

0945 Sooty Tern 65 ± 3

shear/petrel 5+

1030 Sooty Tern 50

Wedgetail 2

Kermadec P? 1

shear/petrel 2

1040 shear/petrel 1

1143 Sooty Tern 60 ± 10

shear/petrel 5+

1144 Sooty Tern 2

1145 Sooty Tern 1

1145 Frigate 1

1146 Wedgetail 1

1147 Sooty Tern 1

1215 Sooty Tern 3

1230 Sooty Tern 91 ± 5

Noddy Tern 2+

Wedgetail 2

Newell's S. 1

1310 long-tailed Jaeger? 1

Sooty Tern 75 ± 5

shear/petrel 10 ± 5

feeding

♀

might have been large Bonin's

Frigate or Sooty Tern

feeding

light feeding  
possibly Newell's.

Wedgie or Newell's (capt.)

feeding

heading toward flock

"

feeding

4" central rectrices - intermediate phase

feeding



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7-28-64

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E

DATE 30 May 65  
Pg. # 2



E

time species # dir. hgt. remarks loc.

1335	Wedgetail	1				
	Sooty Tern	1				
1338	Bulwer's	1				
1339	Wedgetail	1				
1400	Sooty Tern	2				
1402	Wedgetail	1				
1403	Wedgetail	2				
1404	Newell's	1				
1405	Wedgetail	1				
1405	shear/petrel	1				
1406	Sooty Tern	1				
1408	Newell's S.	1				
1425	Sooty Tern	1				
1430	Wedgetail	2				
1450	Bulwer's	1				
1453	Sooty Shear	1	W		fed at	
1615	shear/petrel	1				
1620	Sooty Tern	75 ± 25			feeding	
	shear/petrel	5+				
1621	Sooty Tern	2				
1624	Sooty Tern	5+			feeding	
1627	Wedgetail	1				
1640	Dark-rumped Petrel	1				
1640	Sooty Tern	50 ± 15			feeding	
	shear/petrel	1+				
1643	Wedgetail	1				
1658	shear/petrel	1				
1703	Dark-rumped	1			fed at from long way off	
1710	Sooty Tern	2				
1712	bird	1				
1715	Sooty Tern	65 ± 15				
	Frigate	1			feeding flock	
	shear/petrel	5				
1723	shear/petrel	1				
1730	Sooty Tern	65 ± 15			feeding	
	shear/petrel	5+				
1755	Dark-rumped P	2				
1805	shear-petrel	1				
1835	shear/petrel	1				

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E



DATE 30 May 65  
Pg. # 30

time	species	#	dir.	hgt.	remarks	loc.
1837	Sooty Shear	1	NW			
1838	Arctic Tern	1	N			
1839	Wedgetail	1				
1844	WEDGE-TAIL	1				
1850	Sooty Tern	4				
1905	Sooty Tern	125 ± 25			feeding	
	<del>Shearwater</del>	<del>5</del>				
	Wedgetail	100 ± 25				
1915	Newell's	1			1 dark	
	end observations					

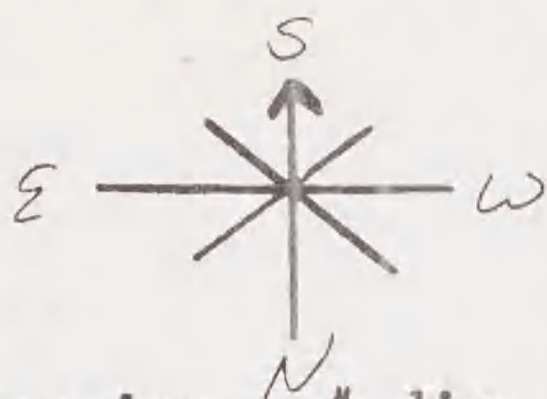
312  
441  
234  
997

$$\begin{array}{r} 34 \\ 119 \\ 785 \\ \underline{49} \\ 987 \end{array}$$

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E

DATE 31 May 65  
Pg. # 1



time	species	#	dir.	hgt.	remarks	loc.
0540	begin observations					
0542	Sooty Tern	2				
0543	WTTB	1				
0545	Sooty Tern	1				
0547	shear/petrel	1				
0555	Bulwer's P	2				
0556	Wedgetail	1				
0605	shear/petrel	1				
0612	Sooty Tern	2			possibly DRP	
0615	sooty tern	2				
0620	Sooty Tern	1				
0621	<del>shear/petrel</del> hybrid	1				
0638	Sooty Terns	3				
0639	Sooty Tern	2				
0648	sooty Tern	1				
0649	Leach's P	1				
0650	Sooty Tern	2				
0650	shear/petrel	1				
0651	shear/petrel	1				
0659	Sooty Tern	3				
0659	shear/petrel	1				
0700	Bulwer's P	1				
0703	Sooty Tern	3				
0704	Sooty Tern	2				
0705	Frigate	1				
0706	Sooty Tern	3				
	Noddy Tern	1				
0707	Sooty Tern	3				
0708	sooty Tern	2				
0709	Newell's S	1				
0710	Bulwer's P	1				
0714	shear/petrel	1				
0715	Bulwer's P	3				
0720	Wedgetail	3				
0725	shear/petrel	1				
0726	Sooty Tern	1				
0750	Wedgetail	3				
0753	Sooty Tern	3				
0753	shear/petrel	1				
0754	Sooty Tern	4				
0800	Noddy Tern	1				
0810	Sooty Tern	1				
0811	shear/petrel	1				
0813	shear/petrel	1				
0815	sooty Tern	3				
0817	shear/petrel	1				
0818	RFB	1				
0820	Wedgetail	1				
0823	Bulwer's	1				
0824	Sooty Tern	2				
0837	Sooty Tern	3				
0840	Sooty Tern	1				

23  
19  
23  
13  
30  
12  
85

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- EDATE 3/ May 65  
Pg. # 2

time	species	#	dir.	hgt.	remarks	loc.
0900	RFB	1				
0910	Wedgetail	1				
0915	Sooty Tern	3				
0916	Sooty Tern	1				
0917	Sooty Tern	2				
0918	Sooty Tern	2				
0919	shear/petrel	1				
0930	Sooty Tern	2				
0931	Wedgetail	1				
0945	Sooty Tern	400 ± 100				
	shear/petrel	5+			feeding	
0945	Noddy Tern	1				
0946	Sooty Tern	1				
0947	shear/petrel	1				
0948	Sooty Tern	1				
	Noddy Tern	1				
0950	Sooty Tern	1				
1005	Sooty Tern	35			feeding	
1006	Sooty Shear	1	N			
1006	Sooty Tern	1				
1006	Sooty Tern	1				
1000	Sooty Tern	1				
1002	Sooty Tern	1				
1003	Sooty Tern	1				
1018	Noddy Tern	1				
1019	Noddy Tern	1				
1020	Noddy Tern	1				
1022	tern sp	1				
1023	Frigate	1				
1025	Sooty Tern	1				
1027	Sooty Tern	25 ± 10			feeding - distant	
1028	Bulwer's P	1				
1029	Sooty Tern	1				
1029	shear/petrel	1			size of cross's, white belly, dark underwing. ? (Ternite)	
1032	Sooty Tern	1				
1033	Wedgetail	1				
1034	Sooty Tern	1				
1037	<del>Sooty</del> Wedgetail	1				
1040	Wedgetail	1				
1047	shear/petrel	1				
1055	Sooty Tern	500 ± 100				
	Wedgetail	100 ± 50			feeding	
	RFB	3+				
	Frigate	1				
1056	Noddy Tern	4				
1056	Wedgetail	1				
1057	Sooty Tern	1				
1100	Sooty Tern	15				
	Noddy Tern	35			feeding	
	Wedgetail	6				
	Frigate	1	RFBZ			

1233

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E



DATE 31 May 65  
Pg. # 3

time	species	#	dir.	hgt.	remarks	loc.
1105	Sooty Tern Noddy RFB Frigate <del>shear</del>	750 ± 200 200 ± 100 3 2			feeding	
1112	Sooty Tern Noddy Tern Wedgetail <del>RFB</del>	100 ± 25 50 ± 25 25 ± 10 =			"	
1120	Sooty Tern Noddy RFB Frigate Wedgetail	200 ± 50 100 ± 50 5 7 40 ± 20			"	
1127	Noddy Tern	1				
1130	shear/petrel	1				
1131	Sooty Tern	1				
1135	shear/petrel	1				
1136	Noddy	1				
1137	Noddy	1				
1138	Noddy	1				
1139	Noddy	1				
1140	Noddy	1				
1141	Wedgetail	2				
1142	Frigate	1				
1200	Frigate	2				
1201	Noddy Tern	1				
1210	Sooty Tern Noddy Tern Wedgetail RFB Frigate	250 ± 75 100 ± 25 50 ± 25 1+ 1			feeding	
1230	Sooty Tern Noddy Tern	13 18			travelling	
1231	Wedgetail	1				
1232	Sooty Tern Noddy Wedgetail Bulwers	10 20 20 2			feeding	
1235	Wedgetail	2				
1240	Sooty Tern Noddy Tern Wedgetail RFB Frigate Bulwers	10 50 50 1 2 1			<del>feeding then scattered</del> feeding	1360 750 2110
1245	Noddy Tern Wedgetail	15 2			travelling	

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- E



DATE 31 May 65  
Pg. # 4

time	species	#	dir.	hgt.	remarks	loc.
1247	Sooty Tern	4			Scattered no flock	
	Noddy	4				
	Wedgetail	3				
1250	Noddy Tern	50			Feeding	
	Wedgetail	20				
	RFB	1				
	Fairy Tern	1				
1251	Sooty Tern	1			<del>scattered</del> no flock	
	Noddy Tern	3				
	Wedgetail	5				
1255	Sooty Tern	100 ± 5			Feeding	
	Noddy Tern	75 ± 20				
	Wedgetail	75 ± 20				
	RFB	16 ± 2				
	Brown Booby	1				
1305	Wedgetail	5			scattered no flock	
	Noddy Tern	3				
	Sooty Tern	1				
1315	Sooty Tern	20			Feeding	
	Noddy Tern	125				
	Wedgetail	25				
	RFB	2				
	Brown Booby	1				
1317	Sooty Tern	1			scattered no flock	
	Noddy Tern	2				
	Wedgetail	1				
	Brown Booby	1				
1325	Wedgetail	1			scattered no flock	
	Noddy Tern	2				
	Sooty Tern	2				
1327	Wedgetail	1				
	Noddy Tern	1				
1328	Frigate	1				
	Sooty Tern	1				
1335	Sooty Tern	15			Feeding	
	Noddy Tern	75				
	Wedgetail	25				
	RFB	2				
	Brown Booby	1				
1345	Sooty Tern	150			Feeding	
	Noddy Tern	150				
	Wedgetail	50				
	RFB	6				
1350	Sooty Tern	10			"	
	Noddy Tern	70				
	Wedgetail	20				

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG -- EDATE 31 May 65  
Pg. # 5

time	species	#	dir.	hgt.	remarks	loc.
1355	Sooty Tern	10			Feeding	
	Noddy Tern	55				
	Wedgetail	10				
1400	Sooty Tern	5			scattered no flock	
	Noddy Tern	4				
	Red-FB	1				
	Frigate	1				
1405	Sooty Tern	3			scattered no flock	
	Noddy Tern	2				
1408	Sooty Tern	2			scattered no flock	
	Noddy Tern	2				
	RFB	2				
	Wedgetail	2				
1409	Noddy Tern	3			"	
	RFB	2				
1410	Sooty Tern	2			"	
	RFB	2				
1413	Sooty Tern	1			"	
	Noddy Tern	10				
	RFB	1				
1415	Sooty Tern	5			feeding	
	Noddy Tern	20				
1416	Noddy Tern	7			scattered no flock	
	RFB	2				
	Wedgetail	1				
1435	Noddy Tern	1				
1440	Sooty Tern	2				
1443	Sooty Tern	8			travelling	
1444	Noddy Tern	4				
1445	Frigate	1				
1450	Noddy Tern	4				
1453	Noddy Tern	4				
1454	sooty Tern	4				
1457	Frigate	2				
1459	Wedgetail	1				
1500	Wedgetail	5			scattered no flock	
1503	Wedgetail	1				
1515	Sooty Tern	12			travelling	
1515	Noddy	1				
1515	and observations					

1129  
2110  
1233  
85  
207  

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4760



DATE 12 May 65

Time at sunrise <sup>1300</sup> = Position at sunrise = 21°19'N 157°58'W

Time at sunset <sup>1857</sup> = Position at sunset = 20°35'N 157°15'W

Miles traveled from 0000 hours to sunrise =

Miles traveled from sunrise to sunset = 60

Miles traveled from sunset to 2400 hours = 51

TIME OF FIX      TYPE OF FIX      LONGITUDE      LATITUDE

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

DATE 13 May 65

Time at sunrise <sup>0553</sup> = Position at sunrise = 18°48'N 157°00'W

Time at sunset <sup>1852</sup> = Position at sunset = 16°53'N 156°57'W

Miles traveled from 0000 hours to sunrise = 59

Miles traveled from sunrise to sunset = 115

Miles traveled from sunset to 2400 hours = 49

TIME OF FIX      TYPE OF FIX      LONGITUDE      LATITUDE

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

DATE 14 May 65

Time at sunrise = 0559 Position at sunrise = 15°07'N 157°02'W

Time at sunset = 1846 Position at sunset = 12°59'N 157°03'W

Miles traveled from 0000 hours to sunrise = 55

Miles traveled from sunrise to sunset = 130

Miles traveled from sunset to 2400 hours = 40

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
--	-------------	-------------	-----------	----------

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

DATE 15 May 65

Time at sunrise = 0555 Position at sunrise = 11°29'N 156°56'W

Time at sunset = 1835 Position at sunset = 10°29'N 154°52'W

Miles traveled from 0000 hours to sunrise = 51

Miles traveled from sunrise to sunset = 131

Miles traveled from sunset to 2400 hours = 54

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
--	-------------	-------------	-----------	----------

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

DATE

16 May 65

Time at sunrise = 0554 Position at sunrise = 10°44'N 153°59'W  
 Time at sunset = 1835 Position at sunset = 12°54'N 154°03'W  
 Miles traveled from 0000 hours to sunrise = 52  
 Miles traveled from sunrise to sunset = 130  
 Miles traveled from sunset to 2400 hours = 39

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

DATE

17 May 65

Time at sunrise = 0548 Position at sunrise = 14°30'N 153°59'W  
 Time at sunset = 1840 Position at sunset = 16°44'N 153°57'W  
 Miles traveled from 0000 hours to sunrise = 57  
 Miles traveled from sunrise to sunset = 134  
 Miles traveled from sunset to 2400 hours = 45

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

DATE 18 May 65

Time at sunrise = 0542 Position at sunrise = 18°37'N 154°05'W

Time at sunset = 1847 Position at sunset = 20°49'N 154°03'W

Miles traveled from 0000 hours to sunrise = 68

Miles traveled from sunrise to sunset = 132

Miles traveled from sunset to 2400 hours = 56

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

1.

2.

3.

4.

5.

6.

DATE 19 May 65

Time at sunrise = 0534 Position at sunrise = 22°40'N 153°51'W

Time at sunset = 1847 Position at sunset = 23°27'N 152°23'W

Miles traveled from 0000 hours to sunrise = 55

Miles traveled from sunrise to sunset = 136

Miles traveled from sunset to 2400 hours = 52

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

1.

2.

3.

4.

5.

6.

DATE 20 May 65

Time at sunrise = 0521 Position at sunrise = 23° 03' N 151° 03' W  
Time at sunset = 1837 Position at sunset = 20° 54' N 151° 02' W  
Miles traveled from 0000 hours to sunrise = 49  
Miles traveled from sunrise to sunset = 129  
Miles traveled from sunset to 2400 hours = 37

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.				
2.				
3.				
4.				
5.				
6.				

DATE 21 May 65

Time at sunrise = 0528 Position at sunrise = 19° 11' N 150° 56' W  
Time at sunset = 1830 Position at sunset = 17° 18' N 151° 00' W  
Miles traveled from 0000 hours to sunrise = 66  
Miles traveled from sunrise to sunset = 113  
Miles traveled from sunset to 2400 hours = 63

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.				
2.				
3.				
4.				
5.				
6.				

DATE

22 May 65

Time at sunrise

= 0533

Position at sunrise

= 15°22'N 150°58'W

Time at sunset

= 1825

Position at sunset

= 13°11'N 151°00'W

Miles traveled from 0000 hours to sunrise

= 53

Miles traveled from sunrise to sunset

= 131

Miles traveled from sunset to 2400 hours

= 39

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.				
2.				
3.				
4.				
5.				
6.				

1.

2.

3.

4.

5.

6.

DATE

23 May 65

Time at sunrise

= 0539

Position at sunrise

= 11°32'N 151°02'W

Time at sunset

= 1815

Position at sunset

= 10°49'N 149°35'W

Miles traveled from 0000 hours to sunrise

= 60

Miles traveled from sunrise to sunset

= 95

Miles traveled from sunset to 2400 hours

= 54

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.				
2.				
3.				
4.				
5.				
6.				

1.

2.

3.

4.

5.

6.

DATE

24 May 65

Time at sunrise

0530

Position at sunrise

= 10°01'N 148°01'W

Time at sunset

1811

Position at sunset

= 11°59'N 147°59'W

Miles traveled from 0000 hours to sunrise

= 50

Miles traveled from sunrise to sunset

= 118

Miles traveled from sunset to 2400 hours

= 59

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

DATE

25 May 65

Time at sunrise

0523

Position at sunrise

= 13°45'N 147°57'W

Time at sunset

1818

Position at sunset

= 15°52'N 147°58'W

Miles traveled from 0000 hours to sunrise

= 47

Miles traveled from sunrise to sunset

= 128

Miles traveled from sunset to 2400 hours

= 45

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

DATE 26 May 65

Time at sunrise = 0518 Position at sunrise = 17° 29' N 148° 00' W  
Time at sunset = 1823 Position at sunset = 19° 08' N 148° 01' W  
Miles traveled from 0000 hours to sunrise = 51  
Miles traveled from sunrise to sunset = 99  
Miles traveled from sunset to 2400 hours = 60

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.				
2.				
3.				
4.				
5.				
6.				

DATE 27 May 65

Time at sunrise = 0511 Position at sunrise = 20° 57' N 148° 05' W  
Time at sunset = 1831 Position at sunset = 23° 21' N 148° 00' W  
Miles traveled from 0000 hours to sunrise = 49  
Miles traveled from sunrise to sunset = 144  
Miles traveled from sunset to 2400 hours = 46

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.				
2.				
3.				
4.				
5.				
6.				



120  
118  
117

DATE 28 May 65

Time at sunrise = 0502 Position at sunrise = 25° 02' N 147° 55' W  
 Time at sunset = 1842 Position at sunset = 26° 08' N 148° 46' W  
 Miles traveled from 0000 hours to sunrise = 55  
 Miles traveled from sunrise to sunset = 131  
 Miles traveled from sunset to 2400 hours = 60

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

DATE 29 May 65

Time at sunrise = 0512 Position at sunrise = 25° 01' N 150° 41' W  
 Time at sunset = 1856 Position at sunset = 25° 02' N 152° 48' W  
 Miles traveled from 0000 hours to sunrise = 61  
 Miles traveled from sunrise to sunset = 117  
 Miles traveled from sunset to 2400 hours = 55

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
-------------	-------------	-----------	----------

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

DATE 30 May 65

Time at sunrise = <sup>0529</sup> Position at sunrise = 24°58'N 154°44'W  
Time at sunset = <sup>1900</sup> Position at sunset = 24°24'N 156°59'W  
Miles traveled from 0000 hours to sunrise = 52  
Miles traveled from sunrise to sunset = 154  
Miles traveled from sunset to 2400 hours = 54

TIME OF FIX      TYPE OF FIX      LONGITUDE      LATITUDE

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

DATE 31 May 65

Time at sunrise = <sup>0531</sup> Position at sunrise = 22°35'N 156°59'W  
Time at sunset = <sup>1520</sup> Position at sunset = 21°15'N 157°49'W  
Miles traveled from 0000 hours to sunrise = 55  
Miles traveled from sunrise to sunset = 104  
Miles traveled from sunset to 2400 hours =

TIME OF FIX      TYPE OF FIX      LONGITUDE      LATITUDE

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

May 1965 BCF Townsend Cromwell Cruise No. 16

The May 1965 Townsend Cromwell cruise, from 12 May to 31 May, was the fourteenth of a series of 15 monthly cruises run by the U.S. Fish and Wildlife Service's Bureau of Commercial Fisheries to the south, east, and north of the high Hawaiian Islands for the purpose of determining monthly variation in the structure and position of water types and currents in the area.

This was the thirteenth cruise in which Pacific Project personnel have taken part. Daily sunrise to sunset bird observations were made for a total of 250.8 hours. In addition Project personnel assisted in making standard marine weather observations and in recording bathythermograms. Warren King was the sole Project personnel aboard this cruise.

Warren B. King  
Research Assistant  
Pacific Project

### General Summary

Numbers for May totalled 9185, considerably higher than previous months. Excepting 31 May, the last day of the cruise, numbers were roughly comparable with May 1964. However, on 31 May record numbers (4761) and flocks (23) were encountered just north of Oahu. These flocks were comprised mainly of Sooty and Noddy Terns, both of which reached record numbers. The area of greatest density was, of course, just north of Oahu, but numbers were considerably higher than usual up to 300 miles north and east of the high Hawaiian Islands. A small secondary density center in the southern portion of the area was due to the influx of Juan Fernandez and Cook's Petrels from the south.

Of interest were the following sightings: a Mottled Petrel, 3 Kermadec Petrels, 16 Dark-rumped Petrels, at least 2 Long-tailed Jaegers, a Skua, 7 Arctic Terns, and the first at sea record of a Wandering Tattler.

It is felt that there is a connection between the very large and numerous flocks seen near Oahu and the fact that Oahu Skipjack Tuna fishermen are experiencing a record catch this summer.

The data gathered appear to be comparable with those of previous months.

## Species Account

## Black-footed Albatross

Only three individuals were seen, one just south of Oahu and two in the northeast corner. The considerable reduction in numbers from 20 in May 1964 may indicate either an earlier breeding season this year or a relatively unsuccessful one. In either case birds would probably be less apt to occur in the area. Water of less than 34.8 percent salinity, which has been suggested as a possible range limit, extended nearly throughout the area as well.

## Wedge-tailed Shearwater

Numbers increased 46 percent from 516 in April to 958. However, this was far short of the 1637 recorded in May 1964. In May 1964 a third or more of the total was seen at the southern end of the area; this density center failed to appear this month. Numbers around the high Hawaiian Islands were even higher this month, though. Large numbers were taking part in feeding flocks just north of Oahu. Dark phase birds penetrated just into the extreme southern end of the area. Most dark birds were molting.

## Newell's Shearwater

Two general density centers for this species were seen in May, one in the southeastern corner, and the second around the high Hawaiian Islands. This distribution pattern has been seen in several previous months as well. Numbers increased to 49 this month,

somewhat below the May 1964 total of 66. In May 1964, 24 birds were seen in the southwestern corner, but in May 1965 the birds were not found there at all, but rather in the southeastern corner.

#### Sooty Shearwater

Of 222 birds observed this month, 81 were seen on 13 May. Two were taking part in a feeding flock. Almost no birds were seen on the  $148^{\circ}$  N leg. This has been noted on previous months as well. It may indicate that the migration route is centered on the Hawaiian Islands. Only a few individuals are expected in June.

#### Kermadec Petrel

Two, possibly three, individuals were seen in May, all north of  $17^{\circ}$  N. All were light phase birds. These are the first May records of this species in the area. Previously none had been seen until July.

#### Dark-rumped Petrel

A new record high of 16 individuals was seen in May. Most were either very near the island of Hawaii or north of the high Hawaiian Islands, although one was seen as far south as  $12^{\circ}$  N. Two were seen flying together for the first time on 30 May.

#### Mottled Petrel

One bird was seen on 16 May heading north at the southern end of the area.

#### Juan Fernandez Petrel

All 263 birds plus 14 with white napes, previously called White-necked Petrels, were found in the southeastern portion of the area. The limit of penetration is indicated by a line from 19° N on the eastern leg to the southwestern corner. This distribution is generally identical to that of May 1964, although fewer birds (165) were seen last year. One bird was collected. Most individuals were undergoing molt. It is felt that distinction between subspecies of this species is not safe on the basis of whiteness of nape alone.

#### Bonin Island Petrel

One bird was seen at close range on 30 May, north of the high Hawaiian Islands.

#### Cook's Petrel

Practically all of the 147 birds seen in May were in the southern end of the area. Although fewer (69) were seen in May 1964, the distribution pattern was identical. Most birds were flying swiftly toward the northwest.

#### Bulwer's Petrel

The majority of the 97 birds seen in May were within 100 miles of the high Hawaiian Islands. The remainder were scattered fairly randomly throughout the area. Fewer birds were seen in the southwest corner than in April. A large flight of some 72 individuals seen just south of Lauai in May 1964 accounts for the difference in numbers between this May and May 1964 (178).

## Leach's Petrel

Numbers dropped considerably from 30<sup>4</sup> in April to 32 this month as the birds moved north to breed. Distribution was fairly random although 10 were seen on 12 May south of Oahu.

## White-tailed Tropicbird

Fourteen birds were seen in May, a slight increase from 8 in April, but below the record 2<sup>4</sup> seen last May when the ship passed close by cliffs where the birds were breeding on Maui.

## Red-tailed Tropicbird

Nine of the thirteen seen in May were south of 15° N. Almost twice as many (25) were seen in May 1964.

## Blue-faced Booby

All 5 birds were at the southern end of the area, as has been the case in previous months. Three were flying in a group on 2<sup>4</sup> May, returning to the ship several times over a period of an hour. All birds were immatures or sub-adults.

## Brown Booby

All 5 birds were seen within sight of Oahu. Four were taking part in feeding flocks.

## Red-footed Booby

All 11<sup>4</sup> birds were within 50 miles of Oahu. Most were in feeding flocks.

## Great Frigatebird

A new high of 48 birds was recorded in May, all within 400 miles



of Oahu. Only 11 were seen in May 1964.

#### Wandering Tattler

One bird circled the ship several times on 29 May. It did not appear to be in breeding plumage. This is the first record of this species at sea in the area.

#### Pomarine Jaeger

Four birds were seen in May, probably stragglers moving north. None was within 50 miles of land.

#### Long-tailed Jaeger

At least two and possibly 3 or 4 birds were seen. Two had central rectrices in excess of three inches. All were intermediate phase. All were over 100 miles from land.

#### Skua

One bird was seen on 22 May just after sunrise. Two were seen in May 1964.

#### Sooty Tern

Almost all of the 5020 Sooty Terns seen in May were within 250 miles of Oahu. Very large flocks were encountered within 50 miles of Oahu on 31 May (up to 1000+ birds per flock). No immature birds were seen. Because of the large flocks in the Oahu area the total for May was considerably higher than the previous high month which was May 1964 (3117). The fact that a record Skipjack Tuna catch is being made this year around Oahu may help to explain these unprecedented numbers.

#### Noddy Tern

A record 1516 Noddies were recorded in May. All but three were within 50 miles of Oahu. These three were seen on 19 May (1) and 30 May (2), all about 200 miles north of Oahu.

#### Fairy Tern

All but one of 13 Fairy Terns was within 300 miles of the high Hawaiian Islands. The exception was at the southern end of the area.

#### Arctic Tern (?)

Six individuals were seen on five different days, all heading north. Last year this species' migration was apparently completed by the end of April in this area.

Table 1

Date	Minutes of Observation	Total Miles
May 12	357	60
13	779	115
14	767	130
15	760	131
16	761	130
17	772	134
18	785	132
19	793	136
20	796	129
21	782	113
22	772	131
23	756	95
24	761	118
25	775	128
26	785	99
27	800	144
28	820	131
29	824	117
30	811	154
31	589	104
Total	15045	2431
Average	752.3	121.6

Table II

Date	Total Birds	Total Sightings	Birds/ Sighting	Birds/ Mile	Flocks	Numbers in Flocks
May 12	859	91	9.44	14.32	13	745
13	387	111	3.49	3.37	5	220
14	58	39	1.49	.45	1	6
15	76	63	1.21	.58	0	0
16	73	55	1.33	.56	0	0
17	45	28	1.61	.34	2	12
18	699	85	8.20	5.30	15	613
19	584	56	10.43	4.29	9	517
20	46	33	1.39	.36	1	5
21	26	22	1.18	.23	0	0
22	46	39	1.18	.35	0	0
23	106	76	1.39	1.12	1	25
24	193	142	1.36	1.64	0	0
25	40	35	1.14	.31	0	0
26	167	53	3.15	1.69	5	112
27	6	6	1.00	.04	0	0
28	11	9	1.22	.08	0	0
29	15	15	1.00	.13	0	0
30	987	65	15.18	6.41	12	920
31	4761	152	31.32	45.78	23	4486
Total	9185	1175	97.71	87.35	87	7661
Average	459.3	58.8	4.89	4.37	4.4	38.3

Table III

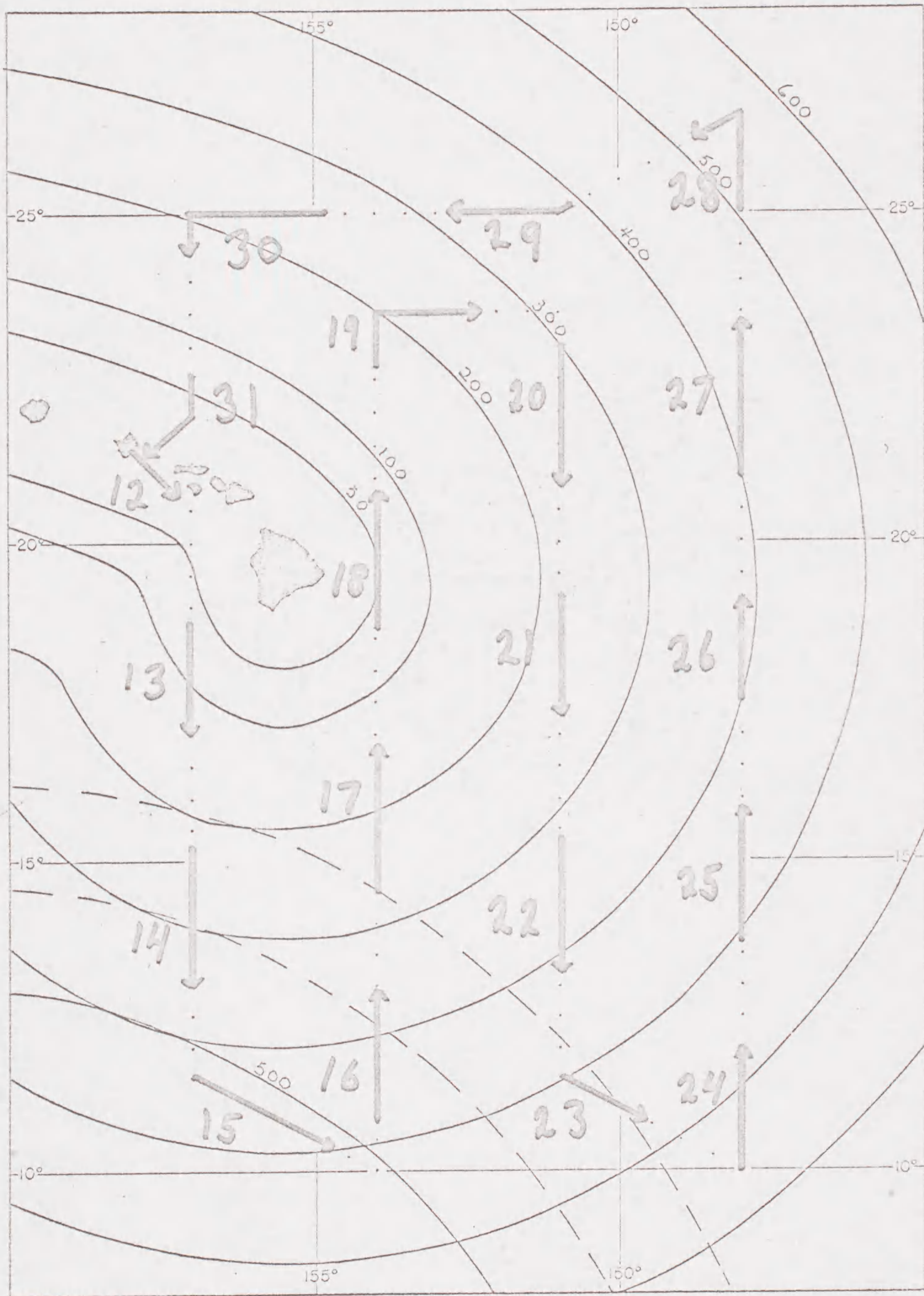
Date	Procellari- iformes	Tropicbirds	Terns	Boobies	Frigatebirds
May 12	133	0	663	61	1
13	141	1	231	0	10
14	37	4	14	0	1
15	73	0	1	0	0
16	64	1	6	1	0
17	42	2	0	0	1
18	110	5	579	0	4
19	93	2	482	0	5
20	34	0	9	0	3
21	22	1	0	0	0
22	36	3	4	0	0
23	93	1	9	1	0
24	185	5	0	3	0
25	40	0	0	0	0
26	160	2	5	0	0
27	5	1	0	0	0
28	11	0	0	0	0
29	9	2	1	0	2
30	192	1	788	0	3
31	600	1	4083	58	18
Total	2080	32	6875	124	48
Average	104	1.6	243.8	6.2	2.4

Table IV

## Procellariiform Breakdown

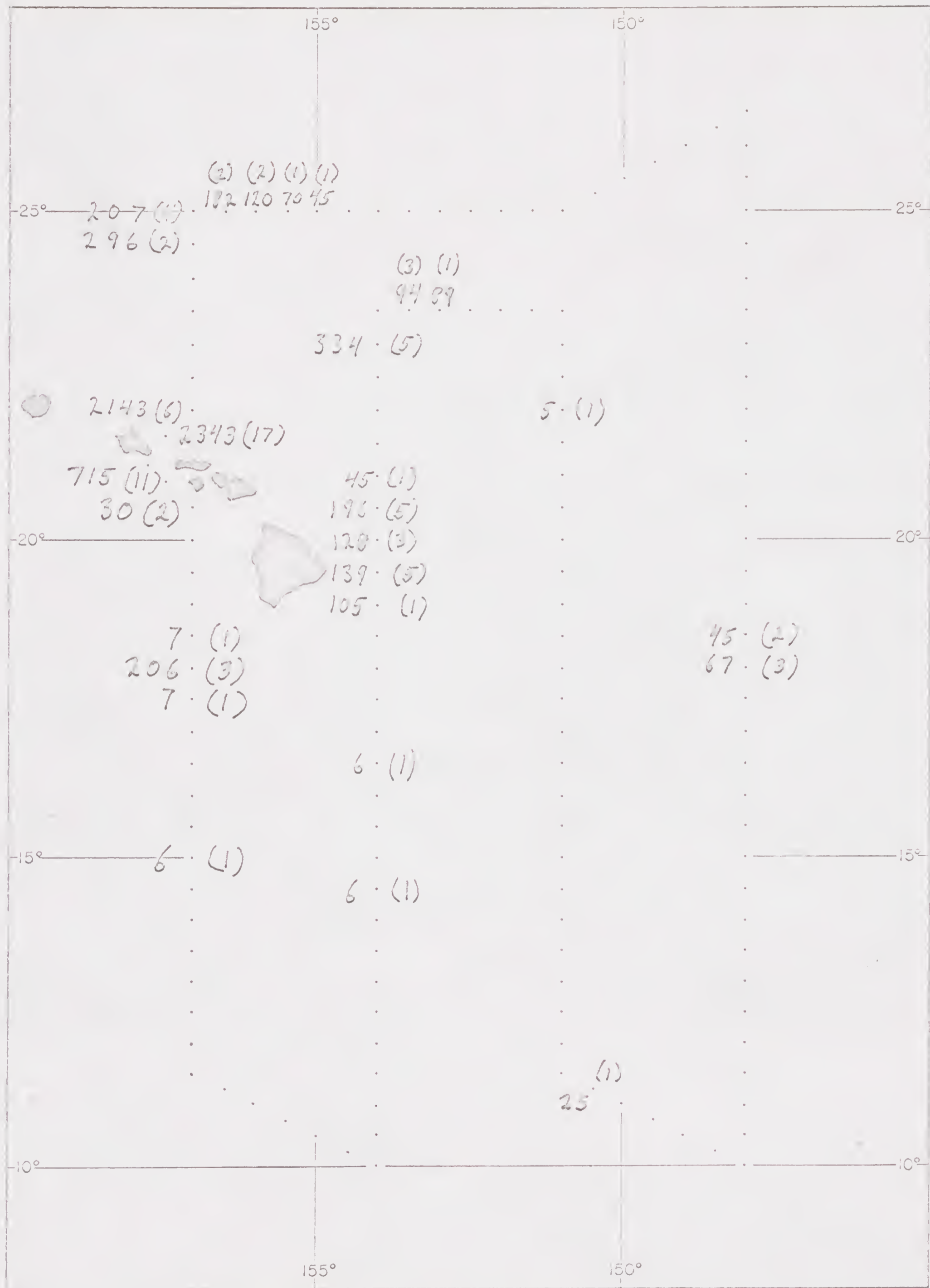
Date	Black-footed Albatross	Wedge-tailed Shearwater	Newell's Shearwater	Sooty Shearwater	Juan Fernandez Petrel	Cook's Petrel	White-necked Petrel	Dark-rumped Petrel	Bulwer's Petrel	Leach's and Storm Petrel species	Miscellaneous and unidentified Procellariiformes
May 12	1	101	0	8	0	0	0	0	20	0	3
13	0	19	8	81	0	1	0	0	14	10	8
14	0	1	0	9	0	15	1	0	2	1	8
15	0	2	0	8	2	42	0	0	6	3	10
16	0	1	0	10	1	37	0	0	4	0	11
17	0	28	0	2	0	3	0	1	3	0	5
18	0	30	1	28	0	0	0	3	11	2	35
19	0	23	11	15	0	0	0	0	6	0	38
20	0	1	1	29	0	0	0	0	2	1	0
21	0	6	0	11	0	0	0	0	1	2	2
22	0	3	0	4	14	2	1	0	3	3	6
23	0	16	8	0	31	12	3	0	2	3	18
24	0	33	6	0	87	32	3	1	2	4	17
25	0	5	0	0	25	1	2	0	2	0	5
26	0	6	0	5	103	2	4	1	1	0	38
27	0	0	0	3	0	0	0	0	1	1	0
28	2	0	6	2	0	0	0	0	0	0	1
29	0	1	0	3	0	0	0	2	1	1	0
30	0	119	7	3	0	0	0	8	4	0	49
31	0	563	1	1	0	0	0	0	12	1	22
Total	3	958	49	222	263	147	14	16	97	32	276

May 1965  
Diurnal Observation Locations



May 1965

Birds in flocks: 7861 (37)





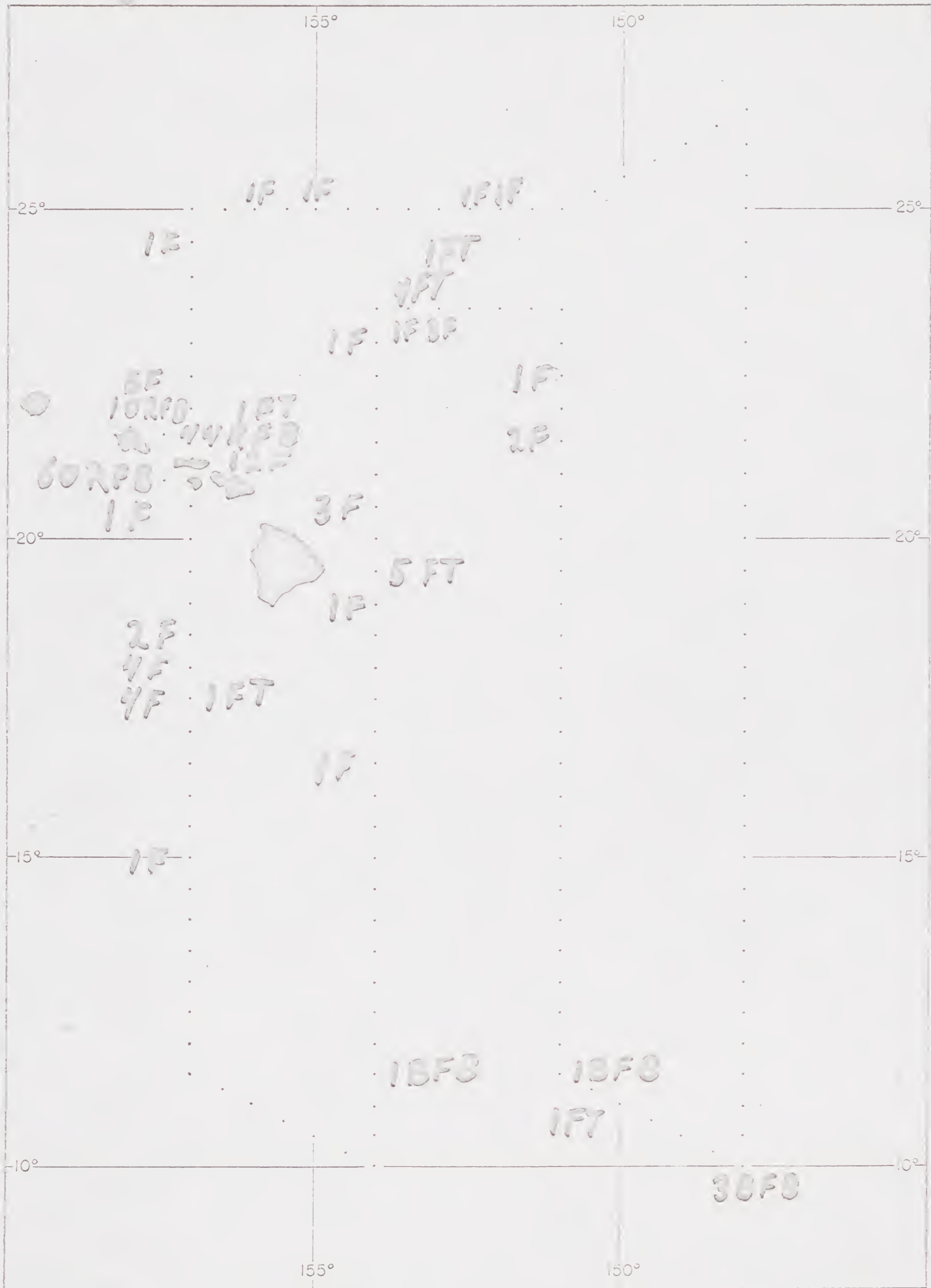
May 1965

Red-footed Booby: 114

Blue-faced Booby: 5

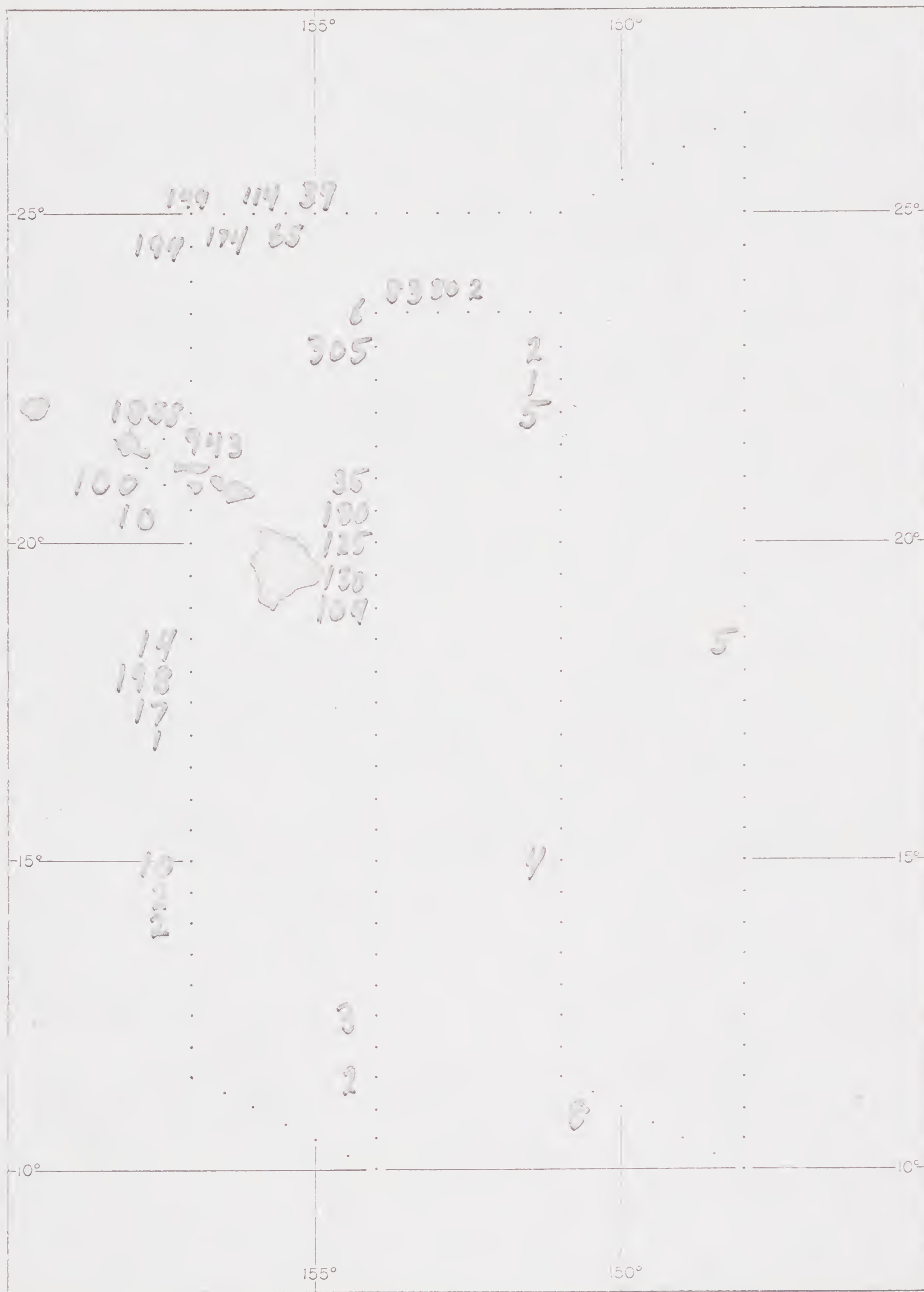
Frigatebird: 40

Fairy Tern: 13

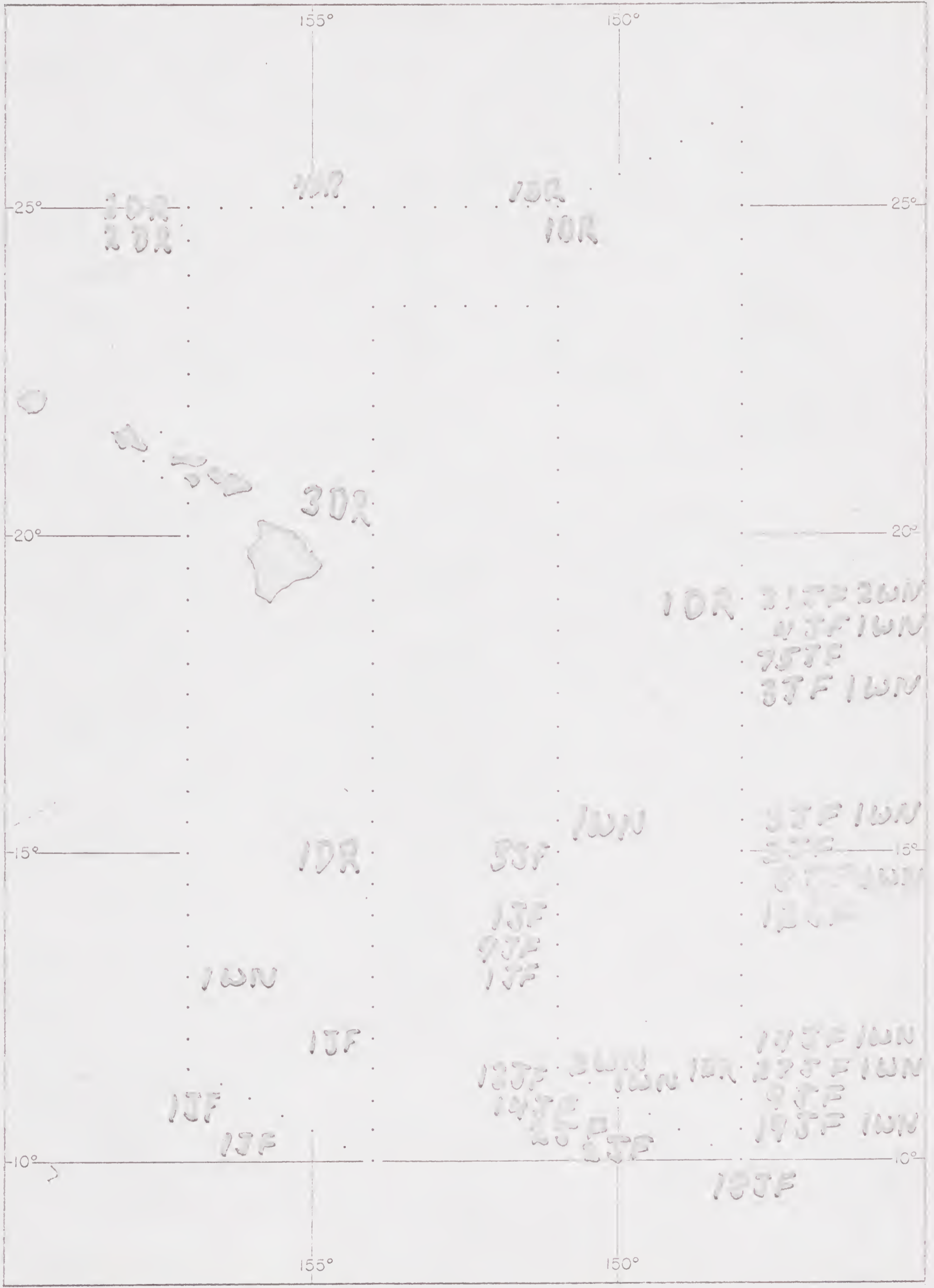


May 1965

Sooty Tern: 5020

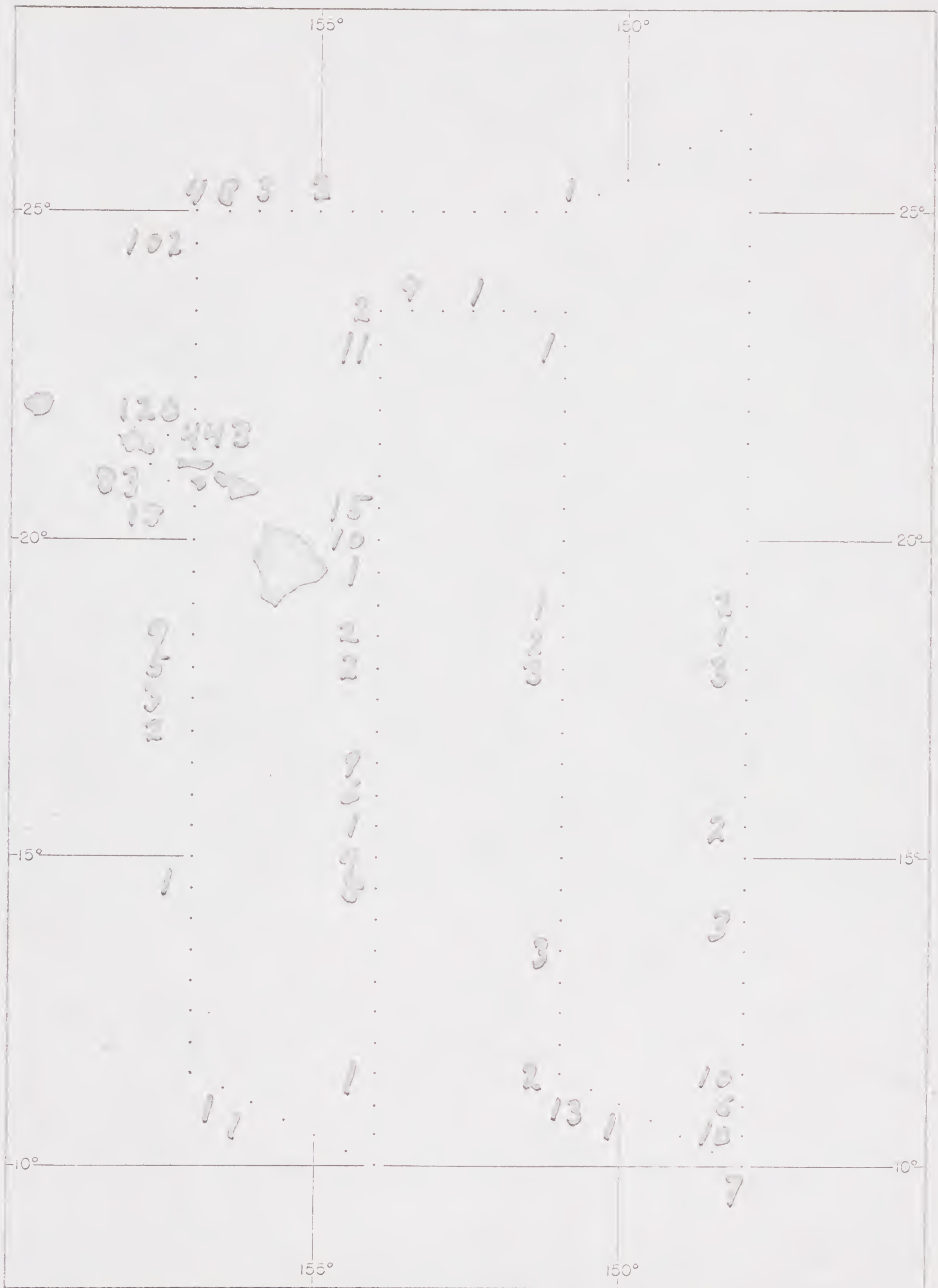


May 1965  
 Dark-rumped Petrel : 16  
 White-necked Petrel : 14  
 Juan Fernandez Petrel : 263



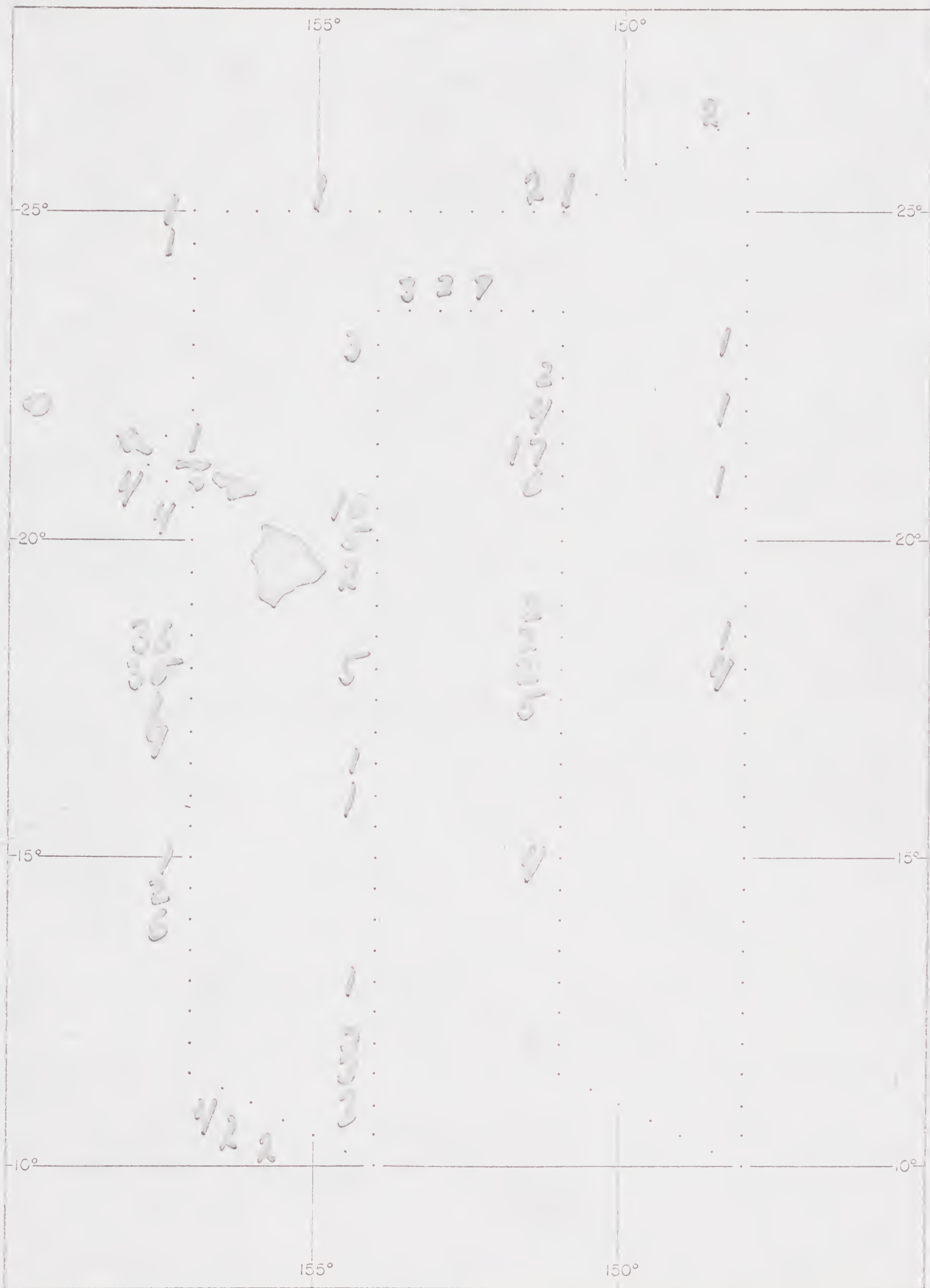
May 1965

Wedge tailed Shearwater: 958



May 1965

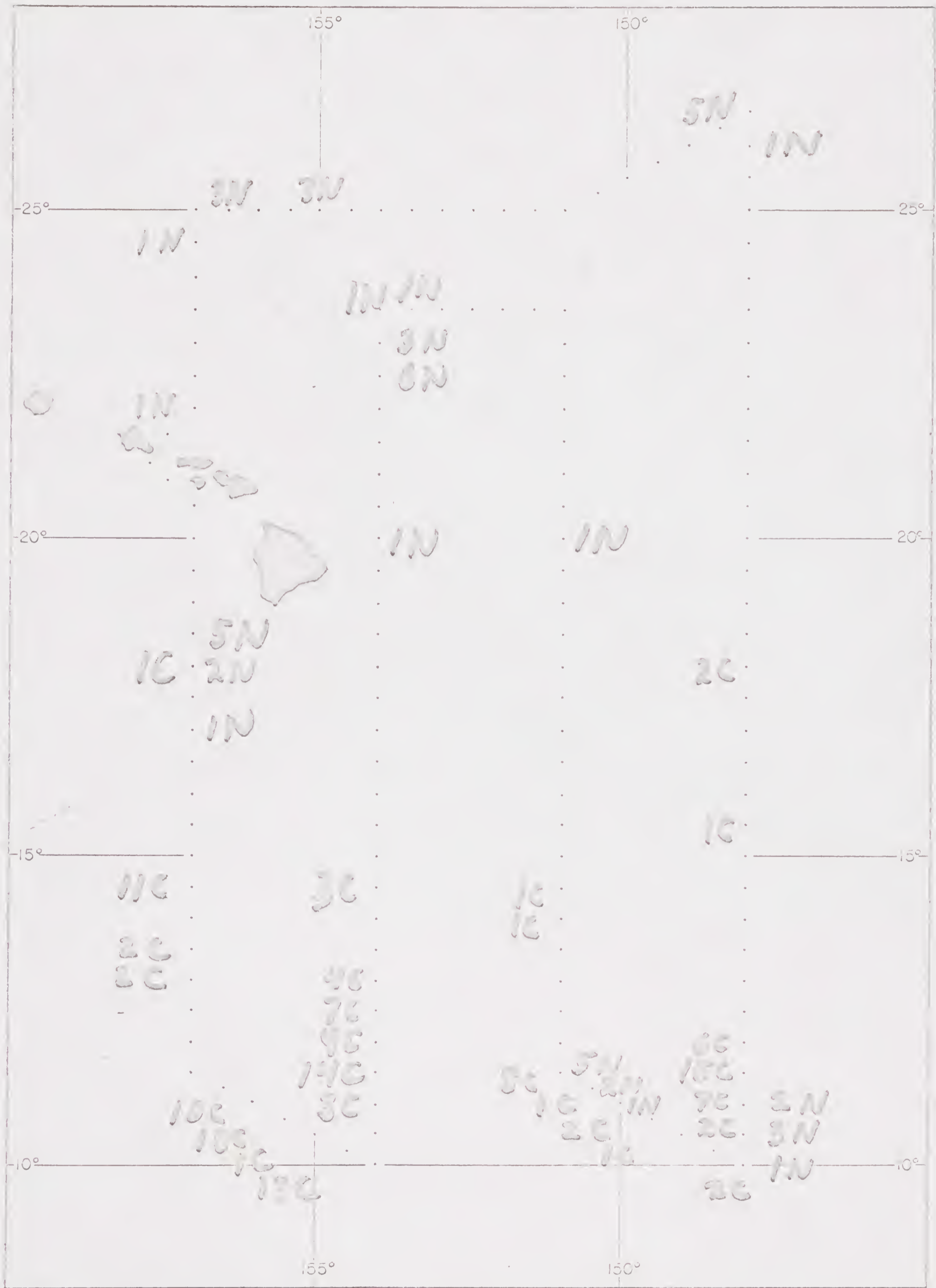
Sooty Shearwater: 222



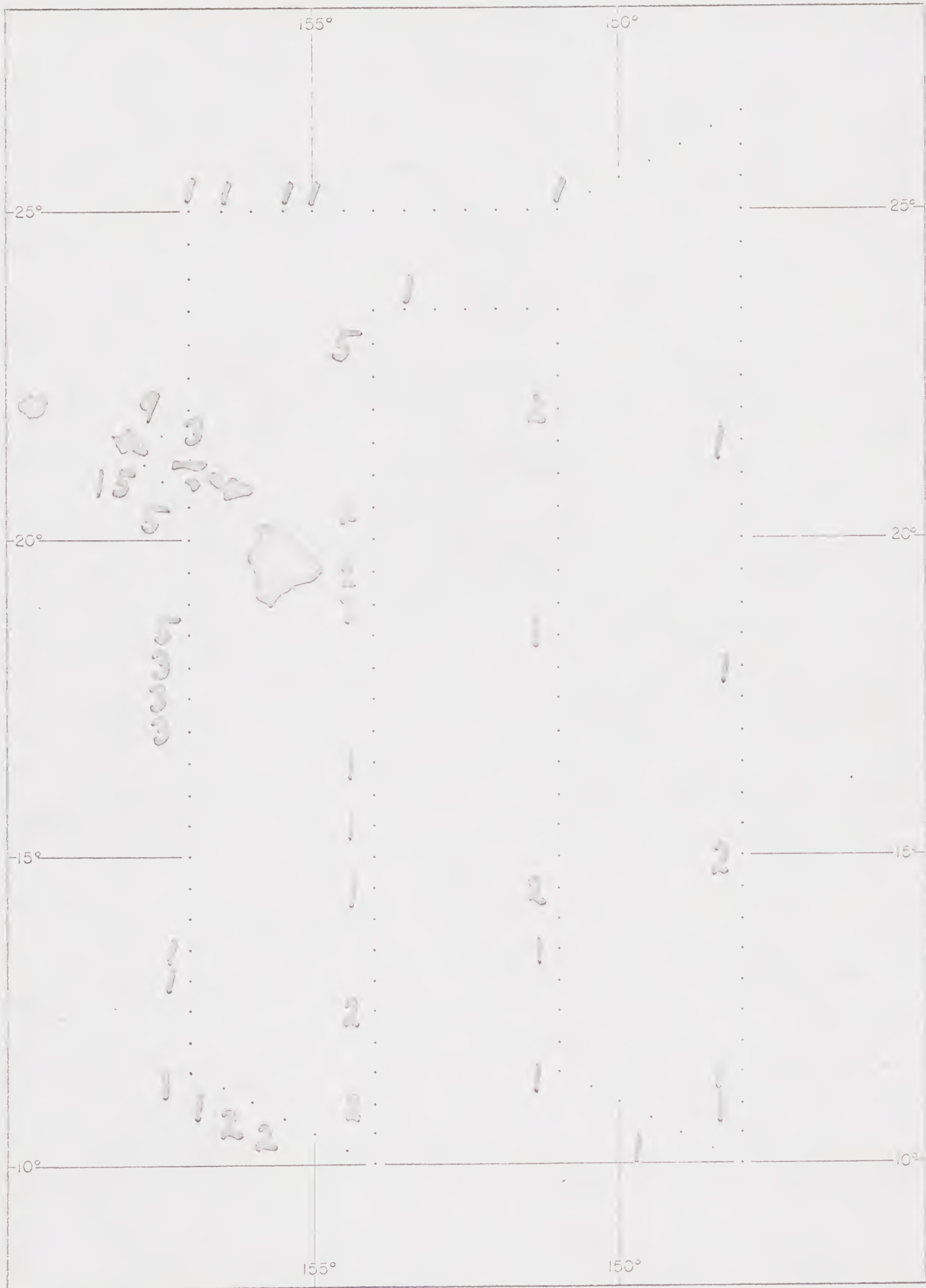
May 1955

Newell's Shearwater: 49

Cook's Petrel: 117

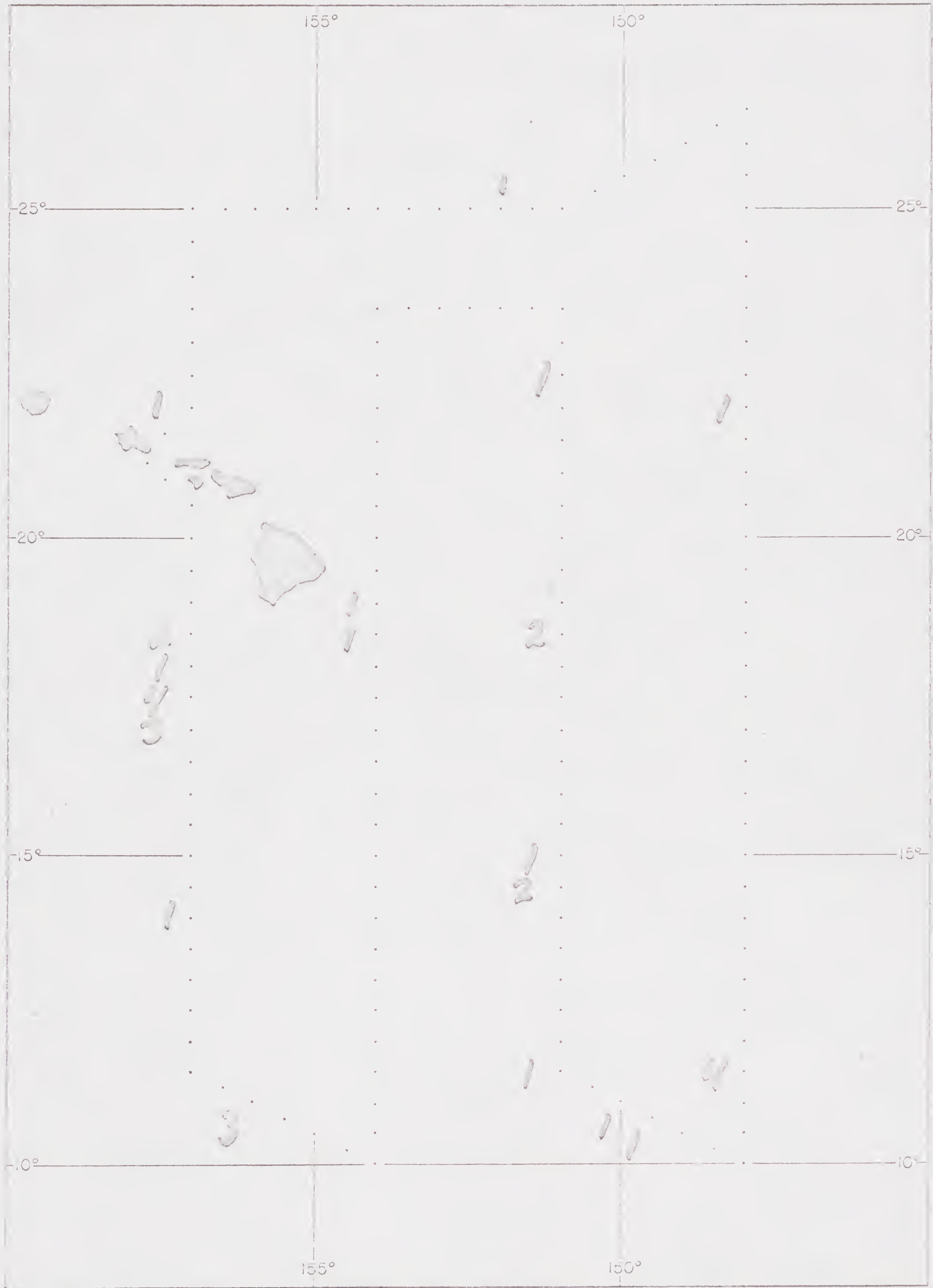


May 1965  
 Bulwer's Petrel: 97



May 1965

Leach's Petrel: 32



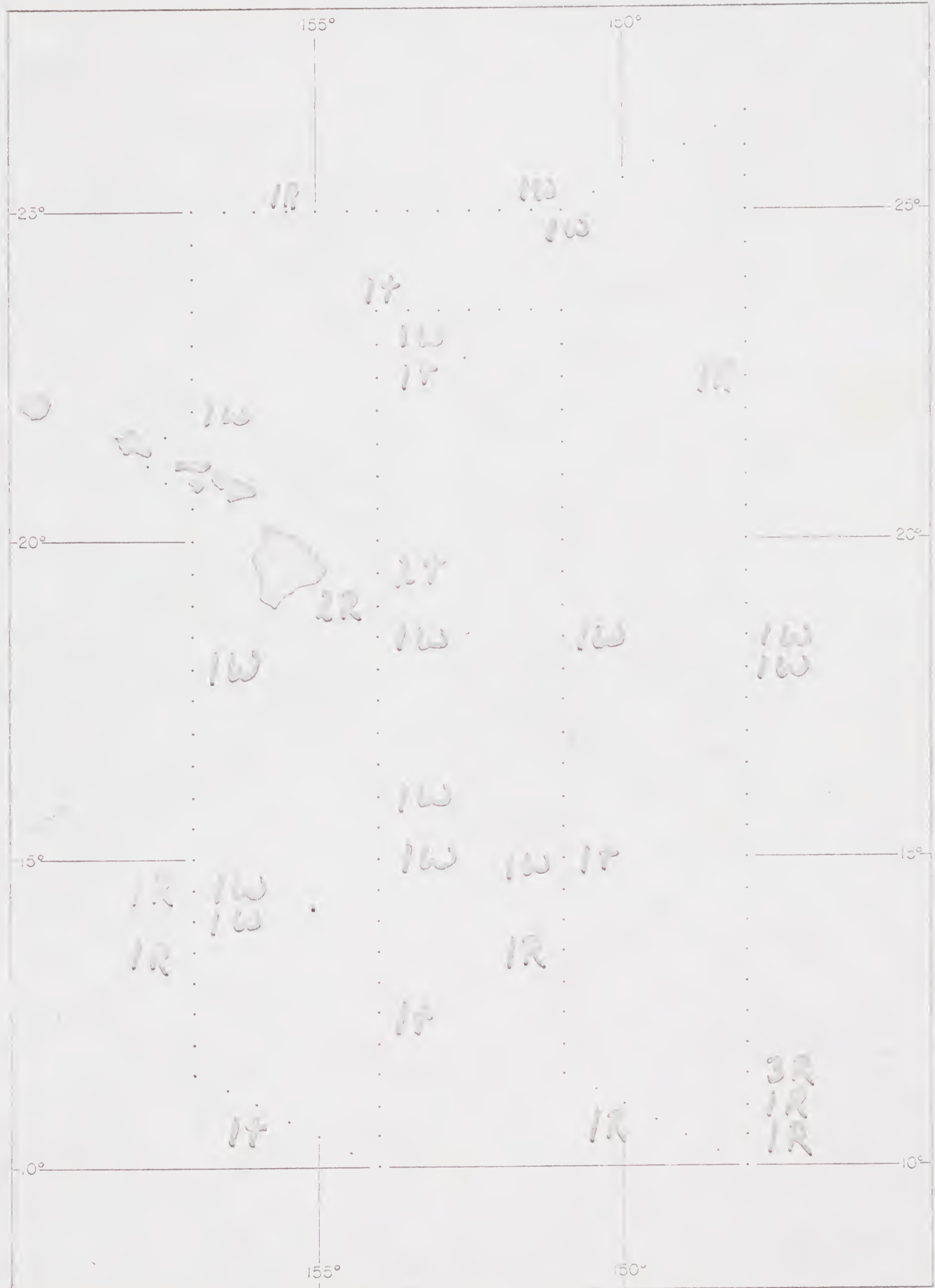


May 1965

Red-tailed Tropicbird : 13

White-tailed Tropicbird : 14

Tropicbird species : 5



SI-MNH-955a  
Rev. 4-9-64

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 12 May 65 Total Minutes: 357 Total Miles 60

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>91</u>	<u>859</u>	<u>9.44</u>	<u>14.32</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>59</u>	<u>34</u>	<u>0</u>	<u>17</u>	<u>133</u>	<u>101</u>	<u>0</u>	<u>20</u>	<u>2.25</u>	<u>2.97</u>	<u>0</u>	<u>1.18</u>	<u>2.22</u>	<u>1.68</u>	<u>0</u>	<u>.33</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>0</u>			<u>0</u>			<u>0</u>			<u>0</u>		

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>34</u>	<u>663</u>	<u>19.5</u>	<u>11.05</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>19</u>	<u>0</u>	<u>19</u>	<u>1</u>	<u>61</u>	<u>0</u>	<u>60</u>	<u>1</u>	<u>3.21</u>	<u>0</u>	<u>3.16</u>	<u>1.0</u>	<u>1.02</u>	<u>0</u>	<u>1.0</u>	<u>.01</u>

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>1</u>	<u>1</u>	<u>1.0</u>	<u>.01</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>13</u>	<u>745</u>	<u>.22</u>	<u>8</u>	<u>585</u>	<u>.13</u>

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 13 May 65 Total Minutes: 779 Total Miles 115

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>111</u>	<u>387</u>	<u>3.49</u>	<u>3.37</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>90</u>	<u>15</u>	<u>1</u>	<u>14</u>	<u>141</u>	<u>19</u>	<u>1</u>	<u>14</u>	<u>1.57</u>	<u>1.27</u>	<u>1.0</u>	<u>1.0</u>	<u>1.23</u>	<u>.17</u>	<u>.01</u>	<u>.12</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1.0</u>	<u>0</u>	<u>1.0</u>	<u>.01</u>	<u>0</u>	<u>.01</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>18</u>	<u>231</u>	<u>12.83</u>	<u>2.01</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>6</u>	<u>10</u>	<u>1.67</u>	<u>.09</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>5</u>	<u>220</u>	<u>.04</u>	<u>4</u>	<u>213</u>	<u>.03</u>

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 14 May 65 Total Minutes: 767 Total Miles 130

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>39</u>	<u>58</u>	<u>1.49</u>	<u>.45</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>28</u>	<u>1</u>	<u>10</u>	<u>2</u>	<u>37</u>	<u>1</u>	<u>16</u>	<u>2</u>	<u>1.32</u>	<u>1.0</u>	<u>1.6</u>	<u>1.0</u>	<u>.28</u>	<u>.01</u>	<u>.12</u>	<u>.02</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>4</u>	<u>2</u>	<u>2</u>	<u>4</u>	<u>2</u>	<u>2</u>	<u>1.0</u>	<u>1.0</u>	<u>1.0</u>	<u>.03</u>	<u>.02</u>	<u>.02</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>6</u>	<u>14</u>	<u>2.33</u>	<u>.11</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>1</u>	<u>1</u>	<u>1.0</u>	<u>.01</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>1</u>	<u>6</u>	<u>.01</u>	<u>0</u>	<u>0</u>	<u>0</u>

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 15 May 65 Total Minutes: 760 Total Miles 131

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>63</u>	<u>76</u>	<u>1.21</u>	<u>.58</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>60</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>73</u>	<u>2</u>	<u>4</u>	<u>6</u>	<u>1.22</u>	<u>1.0</u>	<u>1.29</u>	<u>1.2</u>	<u>.56</u>	<u>.07</u>	<u>.34</u>	<u>.05</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>0</u>			<u>0</u>			<u>0</u>			<u>0</u>		

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>1</u>	<u>1</u>	<u>1.0</u>	<u>.01</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

110  
237  
348  

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 16 May 65 Total Minutes: 761 Total Miles 130

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
55	73	1.33	.56

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
49	1	30	4	64	1	39	4	1.31	1.0	1.3	1.0	.49	.01	.30	.03

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
1	0	0	1	0	0	1.0	0	0	.01	0	0

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
3	6	2.0	.05

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0	0	0	0

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
1	1	0	0	1	1	0	0	1.0	1.0	0	0	.01	.01	0	0

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0	0	0	0

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
0	0	0	0	0	0

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 17 May 65 Total Minutes: 772 Total Miles 134

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>28</u>	<u>45</u>	<u>1.61</u>	<u>.34</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>26</u>	<u>14</u>	<u>3</u>	<u>3</u>	<u>42</u>	<u>28</u>	<u>4</u>	<u>3</u>	<u>1.62</u>	<u>2.0</u>	<u>1.33</u>	<u>1.0</u>	<u>.31</u>	<u>.21</u>	<u>.03</u>	<u>.02</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>2</u>	<u>0</u>	<u>2</u>	<u>2</u>	<u>0</u>	<u>2</u>	<u>1.0</u>	<u>0</u>	<u>1.0</u>	<u>.01</u>	<u>0</u>	<u>.01</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>1</u>	<u>1</u>	<u>1.0</u>	<u>.01</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>2</u>	<u>12</u>	<u>.01</u>	<u>0</u>	<u>0</u>	<u>0</u>



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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 18 May 65 Total Minutes: 785 Total Miles 132

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
85	699	8.2	5.30

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
63	9	3	10	110	30	3	11	1.75	3.33	1.0	1.1	.83	.23	.02	.08

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
4	2	1	5	2	1	1.25	1	1	.04	.02	.01

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
26	579	22.27	4.39

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0	0	0	0

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
0				0				0				0			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
3	4	1.33	.03

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
15	613	11	12	555	.09

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 19 May 65 Total Minutes: 793 Total Miles 136

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>56</u>	<u>584</u>	<u>10.43</u>	<u>4.29</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>38</u>	<u>7</u>	<u>0</u>	<u>4</u>	<u>93</u>	<u>23</u>	<u>0</u>	<u>6</u>	<u>2.45</u>	<u>3.29</u>	<u>0</u>	<u>1.5</u>	<u>.68</u>	<u>.17</u>	<u>0</u>	<u>.04</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>2</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>0</u>	<u>1</u>	<u>1.0</u>	<u>0</u>	<u>1.0</u>	<u>.01</u>	<u>0</u>	<u>.01</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>18</u>	<u>482</u>	<u>26.78</u>	<u>3.54</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>3</u>	<u>5</u>	<u>1.67</u>	<u>.04</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>9</u>	<u>517</u>	<u>.07</u>	<u>6</u>	<u>502</u>	<u>.04</u>

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 20 May 65 Total Minutes: 796 Total Miles 129

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>33</u>	<u>46</u>	<u>1.39</u>	<u>.36</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>27</u>	<u>1</u>	<u>0</u>	<u>2</u>	<u>34</u>	<u>1</u>	<u>0</u>	<u>2</u>	<u>1.26</u>	<u>1.0</u>	<u>0</u>	<u>0</u>	<u>.26</u>	<u>.01</u>	<u>0</u>	<u>.02</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>0</u>			<u>0</u>			<u>0</u>			<u>0</u>		

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>4</u>	<u>9</u>	<u>2.25</u>	<u>.07</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>2</u>	<u>3</u>	<u>1.5</u>	<u>.02</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>1</u>	<u>5</u>	<u>.01</u>	<u>1</u>	<u>5</u>	<u>.01</u>

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 21 May 65 Total Minutes: 782 Total Miles 113

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>22</u>	<u>26</u>	<u>1.18</u>	<u>.23</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>18</u>	<u>5</u>	<u>1</u>	<u>1</u>	<u>22</u>	<u>6</u>	<u>1</u>	<u>1</u>	<u>1.22</u>	<u>1.2</u>	<u>1.0</u>	<u>1.0</u>	<u>.19</u>	<u>.05</u>	<u>.01</u>	<u>.01</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1.0</u>	<u>0</u>	<u>1.0</u>	<u>.01</u>	<u>0</u>	<u>.01</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 22 May 65 Total Minutes: 772 Total Miles 131

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>39</u>	<u>46</u>	<u>1.18</u>	<u>.35</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>32</u>	<u>3</u>	<u>16</u>	<u>3</u>	<u>36</u>	<u>3</u>	<u>17</u>	<u>3</u>	<u>1.13</u>	<u>1.0</u>	<u>1.06</u>	<u>1.0</u>	<u>.27</u>	<u>.02</u>	<u>.13</u>	<u>.02</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>3</u>	<u>1</u>	<u>1</u>	<u>3</u>	<u>1</u>	<u>1</u>	<u>1.0</u>	<u>1.0</u>	<u>1.0</u>	<u>.02</u>	<u>.01</u>	<u>.01</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>2</u>	<u>4</u>	<u>2.0</u>	<u>.03</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 23 May 65 Total Minutes: 756 Total Miles 95

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>76</u>	<u>106</u>	<u>1.39</u>	<u>1.12</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>71</u>	<u>8</u>	<u>37</u>	<u>2</u>	<u>93</u>	<u>16</u>	<u>46</u>	<u>2</u>	<u>1.31</u>	<u>2.0</u>	<u>1.24</u>	<u>1.0</u>	<u>.98</u>	<u>.17</u>	<u>.48</u>	<u>.02</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1.0</u>	<u>1.0</u>	<u>0</u>	<u>.01</u>	<u>.01</u>	<u>0</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>2</u>	<u>9</u>	<u>4.5</u>	<u>.09</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>1.0</u>	<u>1.0</u>	<u>0</u>	<u>0</u>	<u>.01</u>	<u>.01</u>	<u>0</u>	<u>0</u>

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>1</u>	<u>25</u>	<u>.01</u>	<u>0</u>	<u>0</u>	<u>0</u>



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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 25 May 65 Total Minutes: 775 Total Miles 128

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>35</u>	<u>40</u>	<u>1.14</u>	<u>.31</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>35</u>	<u>4</u>	<u>24</u>	<u>2</u>	<u>40</u>	<u>5</u>	<u>28</u>	<u>2</u>	<u>1.14</u>	<u>1.25</u>	<u>1.17</u>	<u>1.0</u>	<u>.31</u>	<u>.04</u>	<u>.22</u>	<u>.02</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>0</u>			<u>0</u>			<u>0</u>			<u>0</u>		

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>



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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 26 May 65 Total Minutes: 785 Total Miles 99

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
53	167	3.15	1.69

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
51	5	27	1	160	6	110	1	3.14	1.2	4.07	1.0	1.62	0.6	1.11	1.01

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
2	0	2	2	0	2	1.0	0	1.0	.02	0	.02

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
1	5	5.0	1.05

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0	0	0	0

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
0				0				0				0			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0	0	0	0

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
5	112	.05	3	87	.03

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 27 May 65 Total Minutes: 800 Total Miles 144

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>6</u>	<u>6</u>	<u>1.0</u>	<u>.04</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>5</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>5</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1.0</u>	<u>0</u>	<u>0</u>	<u>1.0</u>	<u>.03</u>	<u>0</u>	<u>0</u>	<u>.01</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1.0</u>	<u>1.0</u>	<u>0</u>	<u>.01</u>	<u>.01</u>	<u>0</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 28 May 65 Total Minutes: 820 Total Miles 131

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>9</u>	<u>11</u>	<u>1.22</u>	<u>.08</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>9</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>11</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1.22</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>.08</u>	<u>0</u>	<u>0</u>	<u>0</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>0</u>			<u>0</u>			<u>0</u>			<u>0</u>		

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 29 May 65 Total Minutes: 824 Total Miles 117

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>15</u>	<u>15</u>	<u>1.0</u>	<u>.13</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>9</u>	<u>1</u>	<u>3</u>	<u>1</u>	<u>9</u>	<u>1</u>	<u>3</u>	<u>1</u>	<u>1.0</u>	<u>1.0</u>	<u>1.0</u>	<u>1.0</u>	<u>.08</u>	<u>.01</u>	<u>.03</u>	<u>.01</u>

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>2</u>	<u>0</u>	<u>2</u>	<u>2</u>	<u>0</u>	<u>2</u>	<u>1.0</u>	<u>0</u>	<u>1.0</u>	<u>.02</u>	<u>0</u>	<u>.02</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>1</u>	<u>1</u>	<u>1.0</u>	<u>.01</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>1</u>	<u>1</u>	<u>1.0</u>	<u>.01</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>2</u>	<u>2</u>	<u>1.0</u>	<u>.02</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 30 May 65 Total Minutes: 811 Total Miles 154

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>65</u>	<u>987</u>	<u>15.18</u>	<u>6.41</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>49</u>	<u>169</u>	<u>4</u>	<u>192</u>	<u>119</u>	<u>10</u>	<u>4</u>	<u>3.92</u>	<u>7.44</u>	<u>1.11</u>	<u>1.0</u>	<u>1.25</u>	<u>.77</u>	<u>.06</u>	<u>.03</u>	

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1.0</u>	<u>1.0</u>	<u>0</u>	<u>.01</u>	<u>.01</u>	<u>0</u>

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>24</u>	<u>788</u>	<u>32.83</u>	<u>5.12</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>0</u>				<u>0</u>				<u>0</u>				<u>0</u>			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>3</u>	<u>3</u>	<u>1.0</u>	<u>.02</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>12</u>	<u>920</u>	<u>.08</u>	<u>12</u>	<u>920</u>	<u>.08</u>

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: 31 May 65 Total Minutes: 589 Total Miles 104

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
152	4761	31.32	45.78

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
66	39	0	8	600	563	0	12	9.09	14.44	0	1.5	5.77	5.41	0	.12

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
1	0	1	1	0	1	1.0	0	1.0	.01	0	.01

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
100	4083	40.83	39.26

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0	0	0	0

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
20	0	19	4	58	0	54	4	2.9	0	2.84	1.0	.56	0	.52	.04

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
14	18	1.29	.17

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
23	4486	.22	18	4304	.17

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 12 May 65

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100																
0200																
0300																
0400																
0500																
0600																
0700																
0800																
0900																
1000																
1100																
1200																
1300	21 19	157 58														
1400	21 12	157 51														
1500	21 04	157 43														
1600	20 57	157 35														
1700	20 48	157 27														
1800	20 40	157 19														
1900	20 35	157 15														
2000	20 29	157 11														
2100	20 19	157 08														
2200	20 09	157 04														
2300	19 59	157 00														
2400	19 47	156 59														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 13 May 65

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	19 34	156 59													
0200	19 22	156 59	00	5	1016.0	24.5	21		7		320-8-5	25.4	17	320	S-12
0300	19 11	157 00													
0400	19 00	157 00													
0500	18 59	157 00													
0600	18 47	157 00													
0700	18 36	157 01													
0800	18 25	157 01	02	5	1014.2	23.9	21		7		120-6-3	25.0	15	120	S-12
0900	18 15	157 01													
1000	18 05	157 00													
1100	17 54	157 00													
1200	17 44	156 59													
1300	17 32	156 59													
1400	17 29	156 58	01	10	1013.4	26.0	22		4		140-6-3	25.5	18	140	S-12
1500	17 29	156 58													
1600	17 21	156 59													
1700	17 13	156 59													
1800	17 07	156 59													
1900	16 52	156 59													
2000	16 39	156 59	02	10	1013.4	25.7	22		4		140-6-3	25.4	18	140	S-12
2100	16 35	156 59													
2200	16 28	156 59													
2300	16 15	156 59													
2400	16 04	156 59													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS



SI-MNH-955c

3-4-64

## SMITHSONIAN INSTITUTION

DIVISION OF BIRDS

AT SEA SURVEY CHART C

DATE 14 May 65

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	15 59	157 00													
0200	15 54	157 00	02	10	1014.0	24.9	22		4		160-6-3	25.4	15	160	S-12
0300	15 42	157 00													
0400	15 30	157 00													
0500	15 20	157 01													
0600	15 09	157 02													
0700	14 59	157 02													
0800	14 48	157 02	20	10	1013.9	25.0	22		5		140-8-2	25.3	10	140	S-12
0900	14 37	157 02													
1000	14 32	157 02													
1100	14 26	157 02													
1200	14 14	157 02													
1300	14 03	157 01													
1400	13 51	157 01	03	10	1012.9	26.5	23		7		140-8-2	26.1	14	140	S-12
1500	13 40	157 01													
1600	13 29	157 02													
1700	13 18	157 03													
1800	13 06	157 03													
1900	12 59	157 03													
2000	12 54	157 03	01	10	1012.7	26.1	23		2		100-6-3	26.3	19	90	S-12
2100	12 54	157 03													
2200	12 42	157 02													
2300	12 30	157 01													
2400	12 19	157 00													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c  
3-4-64

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 15 May 65

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	12 08	156 59													
0200	11 57	156 59	01	10	1012.4	26.0	23		2		90-6-3	26.0	18	90	9-12
0300	11 45	156 58													
0400	11 33	156 57													
0500	11 30	156 57													
0600	11 29	156 56													
0700	11 25	156 46													
0800	11 21	156 36	02	10	1011.6	26.8	24		2		90-6-5	26.4	18	90	SE-12
0900	11 17	156 26													
1000	11 12	156 16													
1100	11 08	156 06													
1200	11 03	155 56													
1300	10 57	155 46													
1400	10 52	155 36	16	5	1011.1	26.3	24		8		90-6-8	26.4	23	90	SE-12
1500	10 47	155 27													
1600	10 42	155 17													
1700	10 37	155 07													
1800	10 32	154 58													
1900	10 27	154 48													
2000	10 20	154 37	02	5	1011.1	26.4	23		7		90-6-8	26.4	20	90	SE-12
2100	10 18	154 33													
2200	10 11	154 24													
2300	10 05	154 15													
2400	10 00	154 06													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 16 May 65

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	09 58	154 00														
0200	9 58	154 00	02		10	1012.2	23.5	23		4		90-6-6	26.2	16	90	N-12
0300	10 08	154 00														
0400	10 21	153 59														
0500	10 33	153 59														
0600	10 45	153 59														
0700	10 56	153 59														
0800	11 07	153 59	01		10	1012.4	25.8	21		4		110-6-6	25.9	22	110	N-12
0900	11 18	153 59														
1000	11 28	153 59														
1100	11 28	153 59														
1200	11 35	153 59														
1300	11 47	153 59														
1400	11 59	154 00	02		10	1011.4	25.9	22		2		80-6-6	25.9	20	80	N-12
1500	12 11	154 00														
1600	12 23	154 01														
1700	12 35	154 02														
1800	12 47	154 03														
1900	12 58	154 03														
2000	13 04	154 03	02		10	1011.5	25.9	22		2		70-6-8	26.4	20	70	N-12
2100	13 04	154 03														
2200	13 10	154 03														
2300	13 22	154 02														
2400	13 33	154 02														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 17 May 65

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	13 44	154 01														
0200	13 55	154 00	03		10	1012.6	24.5	22		4		70-6-8	26.0	28	70	N-12
0300	14 07	154 00														
0400	14 18	154 00														
0500	14 29	154 00														
0600	14 30	153 59														
0700	14 40	153 59														
0800	14 52	154 01	02		10	1013.8	23.8	20		2		40-6-8	26.0	21	40	N-12
0900	15 04	154 02														
1000	15 15	154 01														
1100	15 26	154 00														
1200	15 37	154 00														
1300	15 49	153 58														
1400	16 00	153 57	02		10	1012.8	25.0	19		3		60-6-6	25.5	10	60	N-12
1500	16 00	153 57														
1600	16 12	153 57														
1700	16 24	153 57														
1800	16 36	153 57														
1900	16 49	153 57														
2000	17 01	153 57	02		10	1013.1	24.6	20		6		60-6-6	24.8	16	60	N-12
2100	17 05	153 57														
2200	17 19	153 59														
2300	17 29	154 00														
2400	17 29	154 00														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 18 May 65

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	17 40	154 00													
0200	17 52	154 01	03	10	1014.8	24.2	21		7		60-6-5	24.2	21	60	N-12
0300	18 04	154 02													
0400	18 16	154 03													
0500	18 29	154 05													
0600	18 40	154 05													
0700	18 51	154 05													
0800	19 00	154 05	02	10	1016.4	24.1	20		6		110-6-5	24.7	12	110	N-12
0900	19 03	154 05													
1000	19 15	154 04													
1100	19 27	154 04													
1200	19 38	154 03													
1300	19 50	154 03													
1400	20 02	154 03	02	10	1015.1	23.2	19		2		100-6-5	24.4	12	100	N-12
1500	20 14	154 03													
1600	20 26	154 03													
1700	20 31	154 03													
1800	20 38	154 03													
1900	20 51	154 03													
2000	21 01	154 03	02	10	1014.9	23.8	19		2		90-6-5	24.8	16	90	N-12
2100	21 07	154 03													
2200	21 19	154 01													
2300	21 32	153 59													
2400	21 45	153 57													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 19 May 65

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	21 57	153 55														
0200	21 59	153 55	02		10	1015.8	23.7	19		2		10-6-5	24.4	18	100	N-12
0300	22 07	153 55														
0400	22 20	153 52														
0500	22 33	153 51														
0600	22 45	153 51														
0700	22 57	153 51														
0800	23 09	153 54	02		10	1018.1	21.8	20		4		110-6-5	23.8	14	110	N-12
0900	23 21	153 56														
1000	23 30	153 56														
1100	23 30	153 54														
1200	23 28	153 41														
1300	23 27	153 29														
1400	23 27	153 18	16		10	1017.6	23.6	19		4		120-6-5	23.9	16	120	E-12
1500	23 27	153 07														
1600	23 27	152 56														
1700	23 27	152 44														
1800	23 27	152 32														
1900	23 27	152 21														
2000	23 27	152 09	01		10	1018.4	23.2	18		3		120-6-5	24.0	18	120	E-12
2100	23 27	152 05														
2200	23 27	151 52														
2300	23 27	151 39														
2400	23 27	151 27														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 20 May 65

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D.	SHIP COURSE/SPD.
0100	23 27	151 14														
0200	23 27	151 01	01		10	1014.0	22.0	17		6		120-6-5	23.6	17	120	E-12
0300	23 27	151 00														
0400	23 17	151 02														
0500	23 06	151 04														
0600	22 56	151 02														
0700	22 46	151 00														
0800	22 35	150 59	02		10	1018.9	22.4	17		4		120-8-5	23.6	12	120	S-12
0900	22 25	150 59														
1000	22 15	150 59														
1100	22 04	151 00														
1200	22 01	151 00														
1300	21 54	151 00														
1400	21 43	151 00	02		10	1017.6	23.0	20		3		90-6-5	23.8	10	90	S-12
1500	21 32	151 00														
1600	21 21	151 01														
1700	21 11	151 01														
1800	21 01	151 01														
1900	20 51	151 02														
2000	20 41	151 02	01		10	1017.6	23.8	19		4		100-6-5	23.7	16	100	S-12
2100	20 35	151 02														
2200	20 30	151 02														
2300	20 28	151 02														
2400	20 17	151 01														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 21 May 65

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	20 05	151 00														
0200	19 53	150 59	02		10	1016.6	23.2	18		2		100-6-5	23.7	12	100	S-12
0300	19 41	150 58														
0400	19 29	150 57														
0500	19 17	150 56														
0600	19 05	150 55														
0700	19 00	150 55														
0800	18 53	150 55	02		10	1016.1	23.2	18		2		90-6-5	24.0	18	90	S-12
0900	18 40	150 55														
1000	18 27	150 55														
1100	18 15	150 56														
1200	18 03	150 56														
1300	17 51	150 57														
1400	17 39	150 59	01		10	1015.1	24.8	20		3		70-6-7	24.2	18	70	S-14
1500	17 31	150 59														
1600	17 31	150 59														
1700	17 31	150 59														
1800	17 24	151 00														
1900	17 11	151 01														
2000	16 59	151 01	02		10	1015.4	24.5	20		3		70-6-7	24.4	18	70	S-12
2100	16 53	151 01														
2200	16 40	151 00														
2300	16 28	151 00														
2400	16 15	150 59														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS



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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 22 May 65

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	16 02	150 59														
0200	15 58	150 59	02		10	1014.6	24.0	19		3		10-6-7	24.7	20	100	S-12
0300	15 51	150 59														
0400	15 39	150 58														
0500	15 27	150 57														
0600	15 17	150 58														
0700	15 06	150 58														
0800	14 54	150 58	02		10	1015.1	24.8	20		3		70-6-7	24.9	14	70	S-12
0900	14 42	150 59														
1000	14 30	150 59														
1100	14 30	150 59														
1200	14 22	150 59														
1300	14 11	150 59														
1400	13 59	150 59	02		10	1013.4	25.5	21		1		90-6-7	25.6	18	90	S-12
1500	13 48	151 00														
1600	13 37	151 00														
1700	13 27	151 00														
1800	13 16	151 00														
1900	13 05	151 01														
2000	13 01	151 01	02		10	1013.9	25.2	21		1		90-6-7	25.9	20	90	S-12
2100	13 01	151 01														
2200	12 54	151 01														
2300	12 43	151 01														
2400	12 32	151 01														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 23 May 65

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	12 21	151 01													
0200	12 09	151 01	02	10	1013.0	25.0	22		1		80-6-8	26.0	19	80	5-12
0300	11 58	151 01													
0400	11 47	151 01													
0500	11 37	151 02													
0600	11 32	151 02													
0700	11 32	151 02													
0800	11 22	151 02	03	10	1013.4	24.5	23		7		70-6-10	26.4	22	70	5-12
0900	11 32	151 02													
1000	11 28	150 54													
1100	11 22	150 44													
1200	11 17	150 34													
1300	11 13	150 25													
1400	11 09	150 15	21	5	1012.8	25.3	24		7		110-6-10	26.4	14	110	58-12
1500	11 04	150 06													
1600	10 59	149 56													
1700	10 55	149 47													
1800	10 50	149 37													
1900	10 46	149 28													
2000	10 41	149 18	21	2	1013.5	26.0	23		7		90-6-10	26.2	24	90	58-12
2100	10 39	149 14													
2200	10 34	149 05													
2300	10 29	148 55													
2400	10 24	148 45													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 24 May 65

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	10 19	148 32													
0200	10 14	148 26	02	2	1012.6	25.0	23		7		90-6-10	263	24	90	SE-12
0300	10 09	148 17													
0400	10 04	148 08													
0500	10 01	148 01													
0600	10 01	148 01													
0700	10 08	148 01													
0800	10 20	148 00	01	5	1013.6	25.8	21		3		70-6-12	26.5	24	70	N-12
0900	10 32	148 00													
1000	10 43	147 59													
1100	10 55	147 58													
1200	11 05	147 58													
1300	11 17	147 59													
1400	11 28	147 59	01	10	1013.4	26.3	20		3		50-6-12	260	18	50	N-12
1500	11 29	147 59													
1600	11 35	147 59													
1700	11 46	147 59													
1800	11 57	147 59													
1900	12 08	147 59													
2000	12 20	147 59	02	10	1015.0	23.2	22		3		90-6-12	261	26	90	N-12
2100	12 25	147 59													
2200	12 36	147 59													
2300	12 47	147 59													
2400	12 58	147 58													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 25 May 65

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	12 58	147 59														
0200	13 05	147 59	02		10	1014.8	23.8	21		3		60-6-12	25.1	24	60	N-12
0300	13 17	147 58														
0400	13 28	147 57														
0500	13 41	147 57														
0600	13 53	147 58														
0700	14 04	147 58														
0800	14 15	147 58	02		10	1016.6	24.2	20		3		60-6-12	24.9	24	60	N-12
0900	14 26	147 59														
1000	14 28	147 59														
1100	14 35	147 59														
1200	14 46	147 59														
1300	14 57	147 59														
1400	15 07	147 59	02		10	1014.6	24.4	20		3		80-6-10	24.6	20	80	N-12
1500	15 17	147 59														
1600	15 28	147 58														
1700	15 39	147 58														
1800	15 50	147 58														
1900	15 55	147 59														
2000	16 01	147 57	02		10	1017.5	24.0	21		3		70-6-10	24.7	24	70	N-12
2100	16 06	147 57														
2200	16 17	147 58														
2300	16 27	147 59														
2400	16 38	147 59														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955c  
3-4-64

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 26 May 65

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	16 49	148 00													
0200	17 00	148 00	02	10	1017.1	23.5	19		3		60-6-10	24.5	25	60	N-12
0300	17 10	148 00													
0400	17 21	148 00													
0500	17 29	148 00													
0600	17 32	148 00													
0700	17 45	148 00													
0800	17 57	147 59	03	5	1018.1	24.0	18		7		20-6-10	24.2	22	70	N-12
0900	18 02	147 59													
1000	18 02	147 59													
1100	18 02	147 59													
1200	18 02	147 59													
1300	18 15	147 59													
1400	18 27	148 00	03	10	1017.4	23.3	19		6		60-6-12	23.5	25	60	N-12
1500	18 39	148 01													
1600	18 51	148 01													
1700	19 02	148 01													
1800	19 03	148 01													
1900	19 15	148 01													
2000	19 27	148 02	02	10	1017.8	22.1	18		6		60-6-10	23.6	23	60	N-12
2100	19 22	148 02													
2200	19 44	148 02													
2300	19 56	148 03													
2400	20 08	148 04													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION

DIVISION OF BIRDS

AT SEA SURVEY CHART C

DATE 27 May 65

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	20 20	148 04														
0200	20 29	148 04	02		10	1018.3	22.1	18		5		60-6-10	23.4	16	60	N-12
0300	20 31	148 04														
0400	20 43	148 05														
0500	20 55	148 05														
0600	21 05	148 04														
0700	21 18	148 03														
0800	21 30	148 03	03		5	1018.6	21.9	17		7		50-6-8	23.0	12	50	N-12
0900	21 42	148 02														
1000	21 54	148 01														
1100	22 00	148 01														
1200	22 04	148 01														
1300	22 16	148 01														
1400	22 28	148 01	02		10	1018.6	22.0	17		3		50-6-8	23.0	16	50	N-12
1500	22 40	148 01														
1600	22 52	148 01														
1700	23 03	148 00														
1800	23 15	148 00														
1900	23 27	148 00														
2000	23 27	148 00	02		10	1019.4	22.7	19		3		80-6-6	23.7	16	80	N-12
2100	23 31	148 00														
2200	23 43	147 59														
2300	23 56	147 58														
2400	24 07	147 58														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 28 May 65

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	24 19	147 57													
0200	24 31	147 57	02	10	1018.8	22.0	17		9		80-6-6	23.3	16	80	N-12
0300	24 43	147 56													
0400	24 55	147 55													
0500	25 02	147 55													
0600	25 06	147 55													
0700	25 18	147 57													
0800	25 30	147 58	01	10	1022.1	22.0	17		4		70-6-6	22.7	15	70	N-12
0900	25 43	147 58													
1000	25 55	147 58													
1100	26 06	147 59													
1200	26 18	148 00													
1300	26 29	148 03													
1400	26 29	148 03	02	10	1022.6	20.7	17		4		80-6-6	22.8	15	80	N-12
1500	26 28	148 05													
1600	26 22	148 16													
1700	26 18	148 27													
1800	26 11	148 38													
1900	26 06	148 49													
2000	26 00	149 02	03	10	1022.6	22.2	17		5		90-6-6	22.7	14	90	SW-12
2100	25 58	149 10													
2200	25 50	149 21													
2300	25 42	149 32													
2400	25 35	149 43													

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 29 May 65

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	25 28	149 54														
0200	25 21	150 05	02		10	1022.1	21.3	19		9		90-6-6	22.6	17	90	SW-12
0300	25 14	150 16														
0400	25 07	150 27														
0500	25 00	150 39														
0600	24 52	150 50														
0700	24 56	150 59														
0800	24 56	150 59	02		10	1022.6	22.8	18		3		80-6-5	23.0	12	80	SW-12
0900	24 56	150 59														
1000	24 56	150 59														
1100	24 56	151 08														
1200	24 57	151 18														
1300	24 58	151 31														
1400	25 00	151 44	02		10	1023.4	25.2	18		3		90-6-5	23.8	12	90	W-12
1500	25 02	151 57														
1600	25 02	152 10														
1700	25 02	152 23														
1800	25 02	152 36														
1900	25 02	152 49														
2000	25 03	153 01	02		10	1022.6	23.4	18		3		60-6-5	23.6	12	60	W-12
2100	25 03	153 14														
2200	25 03	153 27														
2300	25 03	153 35														
2400	25 01	153 48														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS



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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 30 May 65

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	25 00	154 01														
0200	25 00	154 01	02		10	1023.4	21.7	19		3		80-6-5	23.2	12	80	W-12
0300	25 00	154 13														
0400	24 59	154 26														
0500	24 58	154 38														
0600	24 58	154 51														
0700	24 58	155 04														
0800	24 58	155 18	01		10	1023.8	23.7	18		2		70-6-5	23.9	16	70	W-12
0900	24 58	155 32														
1000	24 59	155 46														
1100	24 59	156 00														
1200	24 59	156 13														
1300	25 00	156 27														
1400	24 59	156 40	01		10	1022.5	25.7	70		2		100-6-5	24.5	14	100	W-12
1500	24 58	156 53														
1600	24 58	156 56														
1700	24 48	156 56														
1800	24 36	156 58														
1900	24 24	156 59														
2000	24 12	156 59	02		10	1022.6	23.9	18		2		100-6-5	24.0	12	100	S-12
2100	24 07	156 59														
2200	23 54	156 59														
2300	23 42	156 58														
2400	23 30	156 58														

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA SURVEY CHART C

DATE 31 May 65

TIME	LAT	LONG	PRES	WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	23 30	156 58														
0200	23 17	156 58	02		10	22.0	23.5	19		2		90-65	23.9	18	90	S-12
0300	23 05	156 58														
0400	22 53	156 58														
0500	22 41	156 59														
0600	22 30	157 00														
0700	22 18	157 00														
0800	22 06	157 01	02		10	20.6	23.5	20		2		90-65	24.0	18	80	S-12
0900	22 00	157 01														
1000	21 55	157 04														
1100	21 46	157 12														
1107	21 37	157 20														
1200	21 28	157 28														
1300	21 28	157 28														
1400	21 19	157 36														
1500	21 14	157 43														
1515	21 15	157 49														
1600																
1700																
1800																
1900																
2000																
2100																
2200																
2300																
2400																

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;  
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS